

# Hrvatski zavod za norme

## Oglasnik za normativne dokumente

10/2019 listopad, 2019.

Oglasnik za normativne dokumente Hrvatskog zavoda za norme sadrži popise hrvatskih norma, nacrtu hrvatskih norma, prijedloga za prihvaćanje stranih norma u izvorniku, povučene hrvatske norme, povučene nacrtu hrvatskih norma te ispravke, rezultate europske i međunarodne normizacije razvrstane po predmetnom ustroju i obavijesti HZN-a.

Tko u popisima normativnih dokumenata koji su objavljeni u ovom Oglasniku otkrije koju grešku, koja može voditi do krive primjene, moli se da o tome neodložno obavijesti Hrvatski zavod za norme, kako bi se mogli otkloniti uočeni propusti.

Izdavač:



HZN

**Hrvatski zavod za norme**  
Croatian Standards Institute

## Sadržaj:

<b>1</b>	<b>Rezultati hrvatske normizacije</b> .....	A3
1.1	Hrvatske norme .....	A3
1.2	Nacrti hrvatskih norma .....	
1.3	Prijedlozi za prihvaćanje stranih norma u izvorniku .....	A12
1.4	Povučene hrvatske norme .....	A18
1.5	Povučeni nacrti hrvatskih norma .....	
1.6	Ispravci hrvatskih norma .....	A27
1.7	Naslovi objavljenih hrvatskih norma na hrvatskome jeziku .....	
1.8	Drugi normativni dokumenti .....	
1.9	Opća izdanja HZN-a .....	
1.10	Prijevodni hrvatskih normativnih dokumenata .....	
<b>2</b>	<b>Rezultati međunarodne i europske normizacije razvrstani po predmetnom ustroju</b> .....	A29

# 1 Rezultati hrvatske normizacije

## 1.1 Hrvatske norme

Temeljem Zakona o normizaciji (Narodne novine 80/2013) hrvatske norme priprema, izdaje i objavljuje Hrvatski zavod za norme, na prijedlog tehničkih odbora.

Hrvatske norme mogu nastati na ova četiri načina:

- prihvaćanjem stranih (međunarodnih/europskih/nacionalnih) norma uz prevođenje na hrvatski jezik (pp)
- prihvaćanjem stranih norma u izvorniku s hrvatskim ovitkom (po)
- prihvaćanjem stranih norma u izvorniku objavom obavijesti o prihvaćanju (pr)
- izradbom izvorne hrvatske norme (izv).

Oznaka načina prihvaćanja navedena je uz referencijsku oznaku hrvatske norme. Hrvatske su norme zainteresiranima na raspolaganju u Normoteci Hrvatskoga zavoda za norme, Ulica grada Vukovara 78, Zagreb.

### HZN/TO 8, *Brodogradnja*

HRN EN ISO 6218:2019 en pr  
Plovni objekti unutarnje plovidbe – Ručno i strojno pogonjene spojne naprave za užetom povezane gurače i spojena plovila – Sigurnosni zahtjevi i glavne dimenzije (ISO 6218:2019; EN ISO 6218:2019)  
Inland navigation vessels – Manually-and power-operated coupling devices for rope connections of pushing units and coupled vessels – Safety requirements and main dimensions (ISO 6218:2019; EN ISO 6218:2019)

HRN EN ISO 8384:2019 en pr  
Brodovi i pomorska tehnologija – Jaruzala – Terminološki rječnik (ISO 8384:2019; EN ISO 8384:2019)  
Ships and marine technology – Dredgers – Vocabulary (ISO 8384:2019; EN ISO 8384:2019)

### HZN/TO 21, *Protupožarna i vatrogasna oprema*

HRN DIN VDE 0833-2:2018/Ispr.1:2019 de pr  
Sustavi za uzbunjivanje zbog požara, provale i prepada – 2. dio: Zahtjevi za sustave za požarno uzbunjivanje (DIN VDE 0833-2:2017/Berichtigung 1:2019)  
Gefahrenmeldeanlagen für Brand, Einbruch und Überfall – Teil 2: Festlegungen für Brandmeldeanlagen (DIN VDE 0833-2:2017/Berichtigung 1:2019)

HRN EN 15182-1:2019 en pr  
Prijenosna oprema za stvaranje i nanašanje sredstva za gašenje pomoću vatrogasnih pumpi – Ručne mlaznice za vatrogasnu uporabu – 1. dio: Opći zahtjevi (EN 15182-1:2019)  
Portable equipment for projecting extinguishing agents supplied by firefighting pumps – Hand-held branchpipes for fire service use – Part 1: Common requirements (EN 15182-1:2019)

HRN EN 15182-2:2019 en pr  
Prijenosna oprema za stvaranje i nanašanje sredstva za gašenje pomoću vatrogasnih pumpi – Ručne mlaznice za vatrogasnu uporabu – 2. dio: Kombinirane ručne mlaznice PN 16 (EN 15182-2:2019)  
Portable equipment for projecting extinguishing agents supplied by firefighting pumps – Hand-held branchpipes for fire service use – Part 2: Combination branchpipes PN 16 (EN 15182-2:2019)

### HZN/TO 22, *Cestovna vozila*

HRN EN 13878:2019 en,fr,de pr  
Vozila za odmor – Nazivi i definicije (EN 13878:2019)  
Leisure accommodation vehicles – Terms and definitions (EN 13878:2019)

### HZN/TO 25, *Ljevarstvo*

HRN EN 1753:2019 en pr  
Magnezij i magnezijeve legure – Ingoti i odljevci od magnezijevih legura (EN 1753:2019)  
Magnesium and magnesium alloys – Magnesium alloy ingots and castings (EN 1753:2019)

### HZN/TO 28, *Naftni proizvodi i maziva*

HRN EN ISO 6246:2017/A1:2019 en pr  
Naftni proizvodi – Količina smole u gorivima – Metoda isparivanja pomoću mlaznice – Amandman 1: Zahtjev za čistoćom n-heptana (ISO 6246:2017/Amd 1:2019; EN ISO 6246:2017/A1:2019)  
Petroleum products – Gum content of fuels – Jet evaporation method – Amendment 1: Purity requirement for n-heptane (ISO 6246:2017/Amd 1:2019; EN ISO 6246:2017/A1:2019)

HRN EN 17178:2019 en pr  
Tekući naftni proizvodi – Određivanje ukupne količine isparivog sumpora u ukapljenim naftnim plinovima ultraljubičastom fluorescencijskom spektroskopijom (EN 17178:2019)  
Liquid petroleum products – Determination of the total volatile sulfur content in liquefied petroleum gases by ultraviolet fluorescence spectroscopy (EN 17178:2019)

HRN EN 17306:2019 en pr  
Tekući naftni proizvodi – Određivanje značajki destilacije pri atmosferskom tlaku – Mikrodestilacija (EN 17306:2019)  
Liquid petroleum products – Determination of distillation characteristics at atmospheric pressure – Micro-distillation (EN 17306:2019)

HRN EN ISO 20846:2019 en pr  
Naftni proizvodi – Određivanje količine sumpora u gorivima za motorna vozila – Metoda ultraljubičaste fluorescencije (ISO 20846:2019; EN ISO 20846:2019)  
Petroleum products – Determination of sulfur content of automotive fuels – Ultraviolet fluorescence method (ISO 20846:2019; EN ISO 20846:2019)

HRN EN ISO 20884:2019 en pr  
Naftni proizvodi – Određivanje sadržaja sumpora u gorivima za motorna vozila – Valno disperzivna rendgenska fluorescencna spektrometrija (ISO 20884:2019; EN ISO 20884:2019)  
Petroleum products – Determination of sulfur content of automotive fuels – Wavelength-dispersive X-ray fluorescence spectrometry (ISO 20884:2019; EN ISO 20884:2019)

### HZN/TO 43, *Akustika*

HRN EN ISO 3743-2:2019 en pr  
Akustika – Određivanje razina zvučne snage izvora buke uporabom zvučnoga tlaka – Inženjerska metoda za male, pokretne izvore u odječnim poljima – 2. dio: Metode za specijalne odječne ispitne prostorije (ISO 3743-2:2018; EN ISO 3743-2:2019)  
Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering methods for small, movable sources in reverberant fields – Part 2: Methods for special reverberation test rooms (ISO 3743-2:2018; EN ISO 3743-2:2019)

### HZN/TO 44, *Zavarivanje i srodni postupci*

HRN EN ISO 3821:2019 en pr  
Oprema za plinsko zavarivanje – Gumena crijeva za zavarivanje, rezanje i srodne postupke (ISO 3821:2019; EN ISO 3821:2019)  
Gas welding equipment – Rubber hoses for welding, cutting and allied processes (ISO 3821:2019; EN ISO 3821:2019)

HRN EN ISO 15609-1:2019 en pr  
Specifikacija i kvalifikacija postupaka zavarivanja za metalne materijale – Specifikacija postupka zavarivanja – 1. dio: Elektrolučno zavarivanje (ISO 15609-1:2019; EN ISO 15609-1:2019)  
Specification and qualification of welding procedures for metallic materials – Welding procedure specification – Part 1: Arc welding (ISO 15609-1:2019; EN ISO 15609-1:2019)

HRN EN ISO 15609-2:2019 en pr  
Specifikacija i kvalifikacija postupaka zavarivanja za metalne materijale – Specifikacija postupka zavarivanja – 2. dio: Plinsko zavarivanje (ISO 15609-2:2019; EN ISO 15609-2:2019)  
Specification and qualification of welding procedures for metallic materials – Welding procedure specification – Part 2: Gas welding (ISO 15609-2:2019; EN ISO 15609-2:2019)

### HZN/TO 71, *Beton*

HRN EN 12390-4:2019 en pr  
Ispitivanje očvrsluloga betona – 4. dio: Tlačna čvrstoća – Specifikacija uređaja za ispitivanje (EN 12390-4:2019)  
Testing hardened concrete – Part 4: Compressive strength – Specification for testing machines (EN 12390-4:2019)

HRN EN 12390-16:2019 en pr  
Ispitivanje očvrsluloga betona – 16. dio: Određivanje skupljanja betona (EN 12390-16:2019)  
Testing hardened concrete – Part 16: Determination of the shrinkage of concrete (EN 12390-16:2019)

HRN EN 12390-17:2019 en pr  
Ispitivanje očvrsluloga betona – 17. dio: Određivanje puzanja betona pod pritiskom (EN 12390-17:2019)  
Testing hardened concrete – Part 17: Determination of creep of concrete in compression (EN 12390-17:2019)

### **HZN/TO 86, Uređaji za hlađenje, klimatizaciju i dizalice topline**

HRN EN 378-4:2019 en pr  
Rashladni sustavi i dizalice topline – Zahtjevi s obzirom na sigurnost i okoliš – 4. dio: Rukovanje, održavanje, popravci i sanacija (EN 378-4:2016+A1:2019)  
Refrigerating systems and heat pumps – Safety and environmental requirements – Part 4: Operation, maintenance, repair and recovery (EN 378-4:2016+A1:2019)

### **HZN/TO 120, Koža i obuća**

HRN EN ISO 17700:2019 en pr  
Obuća – Metode ispitivanja dijelova gornjišta i uložaka – Postojanost boje na trljanje i otpuštanje (ISO 17700:2019; EN ISO 17700:2019)  
Footwear – Test methods for upper components and insoles – Colour fastness to rubbing and bleeding (ISO 17700:2019; EN ISO 17700:2019)

### **HZN/TO 121, Anestetička i respiracijska oprema**

HRN EN ISO 5356-2:2013/A1:2019 en pr  
Anestetička i respiracijska oprema – Stožasti priključci – 2. dio: Priključci na navoj veće nosivosti (ISO 5356-2:2012/Amd 1:2019; EN ISO 5356-2:2012/A1:2019)  
Anaesthetic and respiratory equipment – Conical connectors – Part 2: Screw-threaded weight-bearing connectors (ISO 5356-2:2012/Amd 1:2019; EN ISO 5356-2:2012/A1:2019)

HRN EN ISO 5362:2019 en pr  
Spremnik za balon za anesteziju (ISO 5362:2006; EN ISO 5362:2019)  
Anaesthetic reservoir bags (ISO 5362:2006; EN ISO 5362:2019)

HRN EN ISO 20789:2019 en pr  
Anestetička i respiracijska oprema – Pasivni ovlaživači (ISO 20789:2018; EN ISO 20789:2019)  
Anaesthetic and respiratory equipment – Passive humidifiers (ISO 20789:2018; EN ISO 20789:2019)

HRN EN ISO 27427:2019 en pr  
Anestetička i respiracijska oprema – Sustavi i komponente za stvaranje aerosola (ISO 27427:2013; EN ISO 27427:2019)  
Anaesthetic and respiratory equipment – Nebulizing systems and components (ISO 27427:2013; EN ISO 27427:2019)

HRN EN ISO 80601-2-79:2019 en pr  
Medicinska električna oprema – Dio 2-79: Posebni zahtjevi za osnovnu sigurnost i bitne radne značajke opreme za potporu disanju kod poremećaja disanja (ISO 80601-2-79:2018; EN ISO 80601-2-79:2019)  
Medical electrical equipment – Part 2-79: Particular requirements for basic safety and essential performance of ventilatory support equipment for ventilatory impairment (ISO 80601-2-79:2018; EN ISO 80601-2-79:2019)

HRN EN ISO 80601-2-80:2019 en pr  
Medicinska električna oprema – Dio 2-80: Posebni zahtjevi za osnovnu sigurnost i bitne radne značajke opreme za potporu disanju kod respiratorne insuficijencije (ISO 80601-2-80:2018; EN ISO 80601-2-80:2019)  
Medical electrical equipment – Part 2-80: Particular requirements for basic safety and essential performance of ventilatory support equipment for ventilatory insufficiency (ISO 80601-2-80:2018; EN ISO 80601-2-80:2019)

### **HZN/TO 135, Nerazorna ispitivanja**

HRN EN ISO 12718:2019 en,fr,de pr  
Nerazorno ispitivanje – Ispitivanje vrtložnim strujama – Terminološki rječnik (ISO 12718:2019; EN ISO 12718:2019)  
Non-destructive testing – Eddy current testing – Vocabulary (ISO 12718:2019; EN ISO 12718:2019)

HRS CEN ISO/TS 25107:2019 en pr  
Nerazorno ispitivanje – Smjernice za programe osposobljavanja NDT osoblja (ISO/TS 25107:2019; CEN ISO/TS 25107:2019)  
Non-destructive testing – NDT training syllabuses (ISO/TS 25107:2019; CEN ISO/TS 25107:2019)

### **HZN/TO 146, Kvaliteta zraka**

HRN EN ISO 21877:2019 en pr  
Emisije iz nepokretnih izvora – Određivanje masene koncentracije amonijaka – Ručna metoda (ISO 21877:2019; EN ISO 21877:2019)  
Stationary source emissions – Determination of the mass concentration of ammonia – Manual method (ISO 21877:2019; EN ISO 21877:2019)

### **HZN/TO 147, Kvaliteta vode**

HRN EN ISO 21253-1:2019 en pr  
Kvaliteta vode – Metode za više klasa spojeva – 1. dio: Kriteriji za identifikaciju ciljanih spojeva plinskom i tekućinskom kromatografijom i masenom spektrometrijom (ISO 21253-1:2019; EN ISO 21253-1:2019)  
Water quality – Multi-compound class methods – Part 1: Criteria for the identification of target compounds by gas and liquid chromatography and mass spectrometry (ISO 21253-1:2019; EN ISO 21253-1:2019)

HRN EN ISO 21253-2:2019 en pr  
Kvaliteta vode – Metode za više klasa spojeva – 2. dio: Kriteriji za kvantitativno određivanje organskih tvari analitičkom metodom za više klasa spojeva (ISO 21253-2:2019; EN ISO 21253-2:2019)  
Water quality – Multi-compound class methods – Part 2: Criteria for the quantitative determination of organic substances using a multi-compound class analytical method (ISO 21253-2:2019; EN ISO 21253-2:2019)

### **HZN/TO 147/PO 2, Kvaliteta vode; Fizikalno-kemijske metode ispitivanja**

HRN EN ISO 5815-1:2019 en pr  
Kvaliteta vode – Određivanje biokemijske potrošnje kisika nakon n dana (BPKn) – 1. dio: Metoda razrjeđivanja i naciepljivanja uz dodatak alitiouree (ISO 5815-1:2019; EN ISO 5815-1:2019)  
Water quality – Determination of biochemical oxygen demand after n days (BODn) – Part 1: Dilution and seeding method with allylthiourea addition (ISO 5815-1:2019; EN ISO 5815-1:2019)

### **HZN/TO 147/PO 7, Kvaliteta vode; Mikrobiološka i biološka ispitivanja**

HRN EN 17211:2019 en pr  
Kvaliteta vode – Smjernice za kartiranje morskih trava i makroalgi u eulitoralnoj zoni (EN 17211:2019)  
Water quality – Guidance on mapping of seagrasses and macroalgae in the eulittoral zone (EN 17211:2019)

### **HZN/TO 159, Ergonomija**

HRN EN ISO 25066:2019 en pr  
Sustavi i softversko inženjerstvo – Zahtjevi koji se odnose na kvalitetu i ocjenjivanje sustava i softvera (SQuaRE) – Zajednički industrijski format (CIF) za upotrebljivost – Izvješće o ocjenjivanju (ISO/IEC 25066:2016; EN ISO 25066:2019)  
Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) – Common Industry Format (CIF) for Usability – Evaluation Report (ISO/IEC 25066:2016; EN ISO 25066:2019)

### **HZN/TO 181, Sigurnost igračka i proizvodi za djecu**

HRI CEN/TR 13387-1:2019 en pr  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 1. dio: Promišljanje o sigurnosti i procjena sigurnosti (CEN/TR 13387-1:2018)  
Child care articles – General safety guidelines – Part 1: Safety philosophy and safety assessment (CEN/TR 13387-1:2018)

HRI CEN/TR 13387-2:2019 en pr  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 2. dio: Kemijske opasnosti (CEN/TR 13387-2:2018)  
Child care articles – General safety guidelines – Part 2: Chemical hazards (CEN/TR 13387-2:2018)

HRI CEN/TR 13387-3:2019 en pr  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 3. dio: Mehaničke opasnosti (CEN/TR 13387-3:2018)  
Child care articles – General safety guidelines – Part 3: Mechanical hazards (CEN/TR 13387-3:2018)

HRI CEN/TR 13387-5:2019 en pr  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 5. dio: Informacije o proizvodu (CEN/TR 13387-5:2018)  
Child care articles – General safety guidelines – Part 5: Product information (CEN/TR 13387-5:2018)

HRI CEN/TR 15371-1:2019 en pr  
Sigurnost igračkaka – Tumačenja – 1. dio: Odgovori na zahtjeve za tumačenje EN 71-1, EN 71-2, EN 71-8 i EN 71-14 (CEN/TR 15371-1:2017)  
Safety of toys – Interpretations – Part 1: Replies to requests for interpretation of EN 71-1; EN 71-2; EN 71-8 and EN 71-14 (CEN/TR 15371-1:2017)

HRI CEN/TR 15371-2:2019 en pr  
Sigurnost igračkaka – Tumačenja – 2. dio: Odgovori na zahtjeve za tumačenje kemijskih svojstava prema nizu norma EN 71 (CEN/TR 15371-2:2019)  
Safety of toys – Interpretations – Part 2: Replies to requests for interpretation of the chemical standards in the EN 71-series (CEN/TR 15371-2:2019)

### **HZN/TO 215, Medicinska informatika**

HRN EN ISO 12381:2019 en pr  
Medicinska informatika – Jasni vremenski pokazatelji za specifične potrebe u zdravstvenoj zaštiti (ISO 12381:2019; EN ISO 12381:2019)  
Health informatics – Explicit time-related expressions for healthcare-specific problems (ISO 12381:2019; EN ISO 12381:2019)

### **HZN/TO 221, Geosintetici**

HRN EN ISO 13437:2019 en pr  
Geotekstili – Ugradnja i vađenje uzoraka na terenu za procjenu trajnosti (ISO 13437:2019; EN ISO 13437:2019)  
Geosynthetics – Installing and retrieving samples in the field for durability assessment (ISO 13437:2019; EN ISO 13437:2019)

### **HZN/TO 503, Metalni materijali**

HRN EN 10025-2:2019 en pr  
Toplo valjani proizvodi od konstrukcijskih čelika – 2. dio: Tehnički uvjeti isporuke za nelegirane konstrukcijske čelike (EN 10025-2:2019)  
Hot rolled products of structural steels – Part 2: Technical delivery conditions for non-alloy structural steels (EN 10025-2:2019)

HRN EN 10025-3:2019 en pr  
Toplo valjani proizvodi od konstrukcijskih čelika – 3. dio: Tehnički uvjeti isporuke za normalizirane/normalizirane valjane zavarljive sitnozrnate konstrukcijske čelike (EN 10025-3:2019)  
Hot rolled products of structural steels – Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels (EN 10025-3:2019)

HRN EN 10025-4:2019 en pr  
Toplo valjani proizvodi od konstrukcijskih čelika – 4. dio: Tehnički uvjeti isporuke za termomehanički valjane zavarljive sitnozrnate konstrukcijske čelike (EN 10025-4:2019)  
Hot rolled products of structural steels – Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels (EN 10025-4:2019)

HRN EN 10025-5:2019 en pr  
Toplo valjani proizvodi od konstrukcijskih čelika – 5. dio: Tehnički uvjeti isporuke za konstrukcijske čelike otporne na atmosfersku koroziju (EN 10025-5:2019)  
Hot rolled products of structural steels – Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance (EN 10025-5:2019)

HRN EN 10025-6:2019 en pr  
Toplo valjani proizvodi od konstrukcijskih čelika – 6. dio: Tehnički uvjeti isporuke za plosnate proizvode od konstrukcijskih čelika s visokom granicom razvlačenja u poboljšanom stanju (EN 10025-6:2019)  
Hot rolled products of structural steels – Part 6: Technical delivery conditions for flat products of high yield strength structural steels in the quenched and tempered condition (EN 10025-6:2019)

HRN EN 12449:2019 en pr  
Bakar i legure bakra – Bešavne okrugle cijevi za opću namjenu (EN 12449:2016+A1:2019)  
Copper and copper alloys – Seamless, round tubes for general purposes (EN 12449:2016+A1:2019)

### **HZN/TO 504, Korozija i zaštita metala i legura**

HRN EN ISO 28763:2019 en pr  
Staklasti i porculanski emajli – Obnovljive, emajlirane i pakirane obloge za zračno-plinske i plinsko-plinske izmjenjivače topline – Specifikacije (ISO 28763:2019; EN ISO 28763:2019)  
Vitreous and porcelain enamels – Regenerative, enamelled and packed panels for air-gas and gas-gas heat exchangers – Specifications (ISO 28763:2019; EN ISO 28763:2019)

### **HZN/TO 506, Materijali, oprema i konstrukcije za naftnu industriju, prirodni plin i geotermalnu vodu**

HRN EN ISO 10426-3:2019 en pr  
Industrija nafte i prirodnog plina – Cementi i materijali za cementaciju bušotine – 3. dio: Ispitivanje mješavina bušotinskih cementa za primjenu u dubokom podmorju (ISO 10426-3:2019; EN ISO 10426-3:2019)  
Petroleum and natural gas industries – Cements and materials for well cementing – Part 3: Testing of deepwater well cement formulations (ISO 10426-3:2019; EN ISO 10426-3:2019)

HRN EN ISO 18647:2019 en pr  
Industrija nafte i prirodnog plina – Modularne bušilice za odobalne fiksne platforme (ISO 18647:2017; EN ISO 18647:2019)  
Petroleum and natural gas industries – Modular drilling rigs for offshore fixed platforms (ISO 18647:2017; EN ISO 18647:2019)

HRN EN ISO 19903:2019 en pr  
Industrija nafte i prirodnog plina – Stabilne betonske odobalne konstrukcije (ISO 19903:2019; EN ISO 19903:2019)  
Petroleum and natural gas industries – Concrete offshore structures (ISO 19903:2019; EN ISO 19903:2019)

HRN EN ISO 20074:2019 en pr  
Industrija nafte i prirodnog plina – Cjevovodni transportni sustavi – Upravljanje rizikom od geoloških opasnosti za kopnene cjevovode (ISO 20074:2019; EN ISO 20074:2019)  
Petroleum and natural gas industry – Pipeline transportation systems – Geological hazards risk management for onshore pipeline (ISO 20074:2019; EN ISO 20074:2019)

HRN EN ISO 35103:2019 en pr  
Industrija nafte i prirodnog plina – Operacije na Arktiku – Praćenje stanja okoliša (ISO 35103:2017; EN ISO 35103:2019)  
Petroleum and natural gas industries – Arctic operations – Environmental monitoring (ISO 35103:2017; EN ISO 35103:2019)

HRN EN ISO 35106:2019 en pr  
Industrija nafte i prirodnog plina – Operacije na Arktiku – Meteorološko-oceanografski podaci, podaci o ledu i oceanskom dnu (ISO 35106:2017; EN ISO 35106:2019)  
Petroleum and natural gas industries – Arctic operations – Meteorological, ice, and seabed data (ISO 35106:2017; EN ISO 35106:2019)

### **HZN/TO 513, Mjerne jedinice i mjerila**

HRN EN ISO 5167-6:2019 en pr  
Mjerenje protoka fluida u tlačnim cjevovodima kružnoga poprečnog presjeka ugradnjom elemenata na kojima nastaje razlika tlaka – 6. dio: Klinasti protkomjer (ISO 5167-6:2019; EN ISO 5167-6:2019)  
Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full – Part 6: Wedge meters (ISO 5167-6:2019; EN ISO 5167-6:2019)

HRN EN ISO 80000-2:2019 en pr  
Veličine i jedinice – 2. dio: Matematika (ISO 80000-2:2019; EN ISO 80000-2:2019)  
Quantities and units – Part 2: Mathematics (ISO 80000-2:2019; EN ISO 80000-2:2019)

HRN EN ISO 80000-4:2019 en pr  
Veličine i jedinice – 4. dio: Mehanika (ISO 80000-4:2019; EN ISO 80000-4:2019)  
Quantities and units – Part 4: Mechanics (ISO 80000-4:2019; EN ISO 80000-4:2019)

HRN EN ISO 80000-5:2019 en pr  
Veličine i jedinice – 5. dio: Termodinamika (ISO 80000-5:2019; EN ISO 80000-5:2019)  
Quantities and units – Part 5: Thermodynamics (ISO 80000-5:2019; EN ISO 80000-5:2019)

HRN EN ISO 80000-9:2019 en pr  
Veličine i jedinice – 9. dio: Fizikalna kemija i molekularna fizika (ISO 80000-9:2019; EN ISO 80000-9:2019)  
Quantities and units – Part 9: Physical chemistry and molecular physics (ISO 80000-9:2019; EN ISO 80000-9:2019)

HRN EN ISO 80000-10:2019 en pr  
Veličine i jedinice – 10. dio: Atomska i nuklearna fizika (ISO 80000-10:2019; EN ISO 80000-10:2019)  
Quantities and units – Part 10: Atomic and nuclear physics (ISO 80000-10:2019; EN ISO 80000-10:2019)

HRN EN ISO 80000-12:2019 en pr  
Veličine i jedinice – 12. dio: Fizika kondenzirane tvari (ISO 80000-12:2019; EN ISO 80000-12:2019)  
Quantities and units – Part 12: Condensed matter physics (ISO 80000-12:2019; EN ISO 80000-12:2019)

### **HZN/TO 522, Karakterizacija i zbrinjavanje otpada**

HRN EN 13071-3:2019 en pr  
Stalni spremnici za otpad do 5 000 l koji se podižu i prazne kroz dno – 3. dio: Preporučena spojna oprema za podizanje (EN 13071-3:2019)  
Stationary waste containers up to 5 000 l, top lifted and bottom emptied – Part 3: Recommended lifting connections (EN 13071-3:2019)

### **HZN/TO 524, Inteligentni transportni sustavi**

HRN EN 12896-4:2019 en pr  
Javni prijevoz – Referentni model podataka – 4. dio: Nadzor i upravljanje postupcima (EN 12896-4:2019)  
Public transport – Reference data model – Part 4: Operations monitoring and control (EN 12896-4:2019)

HRN EN 12896-5:2019 en pr  
Javni prijevoz – Referentni model podataka – 5. dio: Upravljanje naplatom (EN 12896-5:2019)  
Public transport – Reference data model – Part 5: Fare management (EN 12896-5:2019)

HRN EN 12896-6:2019 en pr  
Javni prijevoz – Referentni model podataka – 6. dio: Informacije za putnike (EN 12896-6:2019)  
Public transport – Reference data model – Part 6: Passenger information (EN 12896-6:2019)

HRN EN 12896-7:2019 en pr  
Javni prijevoz – Referentni model podataka – 7. dio: Upravljanje vozačima (EN 12896-7:2019)  
Public transport – Reference data model – Part 7: Driver management (EN 12896-7:2019)

HRN EN 12896-8:2019 en pr  
Javni prijevoz – Referentni model podataka – 8. dio: Informacije za upravu i statistika (EN 12896-8:2019)  
Public transport – Reference data model – Part 8: Management information & statistics (EN 12896-8:2019)

HRI CEN ISO/TR 16401-1:2019 en pr  
Elektronička naplata – Vrednovanje opreme za utvrđivanje sukladnosti s tehničkom specifikacijom ISO/TS 17575-2 – 1. dio: Struktura niza testova i svrha testiranja (ISO/TR 16401-1:2018; CEN ISO/TR 16401-1:2018)  
Electronic fee collection – Evaluation of equipment for conformity to ISO/TS 17575-2 – Part 1: Test suite structure and test purposes (ISO/TR 16401-1:2018; CEN ISO/TR 16401-1:2018)

HRI CEN ISO/TR 16401-2:2019 en pr  
Elektronička naplata – Vrednovanje opreme za utvrđivanje sukladnosti s tehničkom specifikacijom ISO/TS 17575-2 – 2. dio: Sažetak ispitnog paketa (ISO/TR 16401-2:2018; CEN ISO/TR 16401-2:2018)  
Electronic fee collection – Evaluation of equipment for conformity to ISO/TS 17575-2 – Part 2: Abstract test suite (ISO/TR 16401-2:2018; CEN ISO/TR 16401-2:2018)

HRS CEN/TS 16794-1:2019 en pr  
Javni prijevoz – Komunikacija između beskontaktnih čitača i medija za plaćanje vozničkih karata – 1. dio: Zahtjevi s obzirom na provedbu norme ISO/IEC 14443 (CEN/TS 16794-1:2017)  
Public transport – Communication between contactless readers and fare media – Part 1: Implementation requirements for ISO/IEC 14443 (CEN/TS 16794-1:2017)

HRS CEN/TS 16794-2:2019 en pr  
Javni prijevoz – Komunikacija između beskontaktnih čitača i medija za plaćanje vozničkih karata – 2. dio: Plan ispitivanja za normu ISO/IEC 14443 (CEN/TS 16794-2:2017)  
Public transport – Communication between contactless readers and fare media – Part 2: Test plan for ISO/IEC 14443 (CEN/TS 16794-2:2017)

HRS CEN/TS 17297-2:2019 en pr  
Inteligentni transportni sustavi – Usklađivanje referenciranja lokacija za gradski ITS – 2. dio: Metode transformiranja (CEN/TS 17297-2:2019)  
Intelligent transport systems – Location Referencing Harmonisation for Urban-ITS – Part 2: Transformation methods (CEN/TS 17297-2:2019)

HRS CEN/TS 17378:2019 en pr  
Inteligentni transportni sustavi – Gradski ITS – Upravljanje kvalitetom zraka u gradskim područjima (CEN/TS 17378:2019)  
Intelligent transport systems – Urban ITS – Air quality management in urban areas (CEN/TS 17378:2019)

### **HZN/TO 528, Oprema za željeznice**

HRN EN 13674-2:2019 en pr  
Željeznički sustav – Željeznički gornji ustroj – Tračnica – 2. dio: Tračnice za skretnice i križišta koje se upotrebljavaju zajedno s Vignoleovim željezničkim tračnicama mase 46 kg/m i više (EN 13674-2:2019)  
Railway applications – Track – Rail – Part 2: Switch and crossing rails used in conjunction with Vignole railway rails 46 kg/m and above (EN 13674-2:2019)

### **HZN/TO 531, Plastika i guma**

HRN EN ISO 527-1:2019 en pr  
Plastika – Određivanje rasteznih svojstava – 1. dio: Opća načela (ISO 527-1:2019; EN ISO 527-1:2019)  
Plastics – Determination of tensile properties – Part 1: General principles (ISO 527-1:2019; EN ISO 527-1:2019)

HRN EN ISO 20337:2019 en pr  
Fibre-reinforced plastic composites – Shear test method using a shear frame for the determination of the in-plane shear stress/shear strain response and shear modulus (ISO 20337:2018; EN ISO 20337:2019)

### **HZN/TO 533, Kolničke konstrukcije**

HRN EN 12697-53:2019 en pr  
Bitumenske mješavine – Metode ispitivanja – 53. dio: Povećanje kohezije metodom razastiranja (EN 12697-53:2019)  
Bituminous mixtures – Test methods – Part 53: Cohesion increase by spreadability-meter method (EN 12697-53:2019)

HRN EN 12697-54:2019 en pr  
Bitumenske mješavine – Metode ispitivanja – 54. dio: Njegovanje uzorka za ispitivanje mješavina s bitumenskom emulzijom (EN 12697-54:2019)  
Bituminous mixtures – Test methods – Part 54: Curing of specimen for test of mixtures with bitumen emulsion (EN 12697-54:2019)

HRN EN 12697-55:2019 en pr  
Bitumenske mješavine – Metode ispitivanja – 55. dio: Organoleptička procjena mješavina s bitumenskom emulzijom (EN 12697-55:2019)  
Bituminous mixtures – Test methods – Part 55: Organoleptic assessment of mixtures with bitumen emulsion (EN 12697-55:2019)

HRN EN 12697-56:2019 en pr  
Bitumenske mješavine – Metode ispitivanja – 56. dio: Priprema uzorka statičkim zbijanjem (EN 12697-56:2019)  
Bituminous mixtures – Test methods – Part 56: Specimen preparation by static compaction (EN 12697-56:2019)

HRN EN 13108-31:2019 en pr  
Bitumenske mješavine – Specifikacije materijala – 31. dio: Asfaltbeton s bitumenskom emulzijom (EN 13108-31:2019)  
Bituminous mixtures – Material specifications – Part 31: Asphalt Concrete with Bituminous Emulsion (EN 13108-31:2019)

## **HZN/TO 537, Tehnički crteži, dimenzijske i geometrijske specifikacije, opis proizvoda i odgovarajuća dokumentacija**

HRN EN ISO 129-1:2019 en pr  
Tehnička dokumentacija proizvoda – Prikazivanje dimenzija i tolerancija – 1. dio: Opća načela (ISO 129-1:2018; EN ISO 129-1:2019)  
Technical product documentation (TPD) – Presentation of dimensions and tolerances – Part 1: General principles (ISO 129-1:2018; EN ISO 129-1:2019)

HRN EN ISO 13385-1:2019 en pr  
Geometrijske specifikacije proizvoda (GSP) – Oprema za mjerenje dimenzija – 1. dio: Konstrukcijska i mjeriteljska svojstva pomičnih mjerila (ISO 13385-1:2019; EN ISO 13385-1:2019)  
Geometrical product specifications (GPS) – Dimensional measuring equipment – Part 1: Design and metrological characteristics of callipers (ISO 13385-1:2019; EN ISO 13385-1:2019)

HRN EN ISO 13715:2019 en pr  
Tehnička dokumentacija proizvoda – Rubovi nedefiniranog oblika – Označavanje i dimenzioniranje (ISO 13715:2017; EN ISO 13715:2019)  
Technical product documentation – Edges of undefined shape – Indication and dimensioning (ISO 13715:2017; EN ISO 13715:2019)

HRN EN ISO 18388:2019 en pr  
Tehnička dokumentacija proizvoda (TPD) – Reljefni žljebovi – Tipovi i dimenzioniranje (ISO 18388:2016; EN ISO 18388:2019)  
Technical product documentation (TPD) – Relief grooves – Types and dimensioning (ISO 18388:2016; EN ISO 18388:2019)

## **HZN/TO 539, Kemijski dezinficijensi i antiseptici**

HRN EN 1656:2019 en pr  
Kemijski dezinficijensi i antiseptici – Kvantitativni suspenzijski test za procjenu baktericidne djelotvornosti kemijskih dezinficijensa i antiseptika koji se upotrebljavaju u veterinarstvu – Metoda ispitivanja i zahtjevi (faza 2, korak 1) (EN 1656:2019)  
Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary area – Test method and requirements (phase 2, step 1) (EN 1656:2019)

## **HZN/TO 541, Sustavi grijanja, ventilacije i klimatizacije u građevinama**

HRN EN ISO 20361:2019 en pr  
Pumpe i pumpne jedinice za kapljevine – Ispitna pravila za mjerenje buke – 2. i 3. razred točnosti (ISO 20361:2019; EN ISO 20361:2019)  
Liquid pumps and pump units – Noise test code – Grades 2 and 3 of accuracy (ISO 20361:2019; EN ISO 20361:2019)

## **HZN/TO 543, Poštanske usluge**

HRI CEN/TR 17386:2019 en pr  
Poštanske usluge – Mjerenje tranzitnog vremena poštanskih pošiljaka u prekograničnom prometu na temelju podataka stvarnih pošiljaka (CEN/TR 17386:2019)  
Postal services – Transit time measurement for cross border postal items using real mail feasibility study (CEN/TR 17386:2019)

## **HZN/TO 544, Strojni elementi**

HRN EN ISO 3269:2019 en pr  
Spojni elementi – Prijamno ispitivanje (ISO 3269:2019; EN ISO 3269:2019)  
Fasteners – Acceptance inspection (ISO 3269:2019; EN ISO 3269:2019)

## **HZN/TO 546, Očuvanje kulturne baštine**

HRN EN 17121:2019 en pr  
Očuvanje kulturne baštine – Povijesne drvene konstrukcije – Smjernice za ocjenjivanje nosivih drvenih konstrukcija na licu mjesta (EN 17121:2019)  
Conservation of cultural heritage – Historic timber structures – Guidelines for the on-site assessment of load-bearing timber structures (EN 17121:2019)

## **HZN/TO 557, Zaštitna odjeća**

HRN EN ISO 11393-2:2019 en pr  
Zaštitna odjeća za korisnike ručnih lančanih pila – 2. dio: Zahtjevi za svojstva i metode ispitivanja za štitičnike nogu (ISO 11393-2:2018; EN ISO 11393-2:2019)  
Protective clothing for users of hand-held chainsaws – Part 2: Performance requirements and test methods for leg protectors (ISO 11393-2:2018; EN ISO 11393-2:2019)

HRN EN ISO 11393-4:2019 en pr  
Zaštitna odjeća za korisnike ručnih lančanih pila – 4. dio: Zahtjevi za svojstva i metode ispitivanja za zaštitne rukavice (ISO 11393-4:2018; EN ISO 11393-4:2019)  
Protective clothing for users of hand-held chainsaws – Part 4: Performance requirements and test methods for protective gloves (ISO 11393-4:2018; EN ISO 11393-4:2019)

## **HZN/TO 560, Tekstilni proizvodi**

HRN EN ISO 2307:2019 en pr  
Vlaknasta užad – Određivanje određenih fizikalnih i mehaničkih svojstava (ISO 2307:2019; EN ISO 2307:2019)  
Fibre ropes – Determination of certain physical and mechanical properties (ISO 2307:2019; EN ISO 2307:2019)

## **HZN/TO 561, Kotlovi, posude pod tlakom, cjevovodi i plinske boce**

HRN EN 215:2019 en pr  
Termostatski radijatorski ventili – Zahtjevi i metode ispitivanja (EN 215:2019)  
Thermostatic radiator valves – Requirements and test methods (EN 215:2019)

HRN EN ISO 9809-1:2019 en pr  
Plinske boce – Projektiranje, konstruiranje i ispitivanje ponovo punjivih bešavnih čeličnih plinskih boca i cilindričnih spremnika – 1. dio: Boce i cilindrični spremnici od poboljšanog čelika s vlačnom čvrstoćom manjom od 1100 MPa (ISO 9809-1:2019; EN ISO 9809-1:2019)  
Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa (ISO 9809-1:2019; EN ISO 9809-1:2019)

HRN EN ISO 9809-2:2019 en pr  
Plinske boce – Projektiranje, konstruiranje i ispitivanje ponovo punjivih bešavnih čeličnih plinskih boca i cilindričnih spremnika – 2. dio: Boce i cilindrični spremnici od poboljšanog čelika s vlačnom čvrstoćom većom od 1100 MPa (ISO 9809-2:2019; EN ISO 9809-2:2019)  
Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 2: Quenched and tempered steel cylinders and tubes with tensile strength greater than or equal to 1 100 MPa (ISO 9809-2:2019; EN ISO 9809-2:2019)

HRN EN ISO 9809-3:2019 en pr  
Plinske boce – Projektiranje, konstruiranje i ispitivanje ponovo punjivih bešavnih, čeličnih plinskih boca i cilindričnih spremnika – 3. dio: Boce i cilindrični spremnici od normaliziranog čelika (ISO 9809-3:2019; EN ISO 9809-3:2019)  
Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 3: Normalized steel cylinders and tubes (ISO 9809-3:2019; EN ISO 9809-3:2019)

HRN EN ISO 14245:2019 en pr  
Plinske boce – Specifikacije i ispitivanje ventila boca za UNP – Automatsko zatvaranje (ISO 14245:2019; EN ISO 14245:2019)  
Gas cylinders – Specifications and testing of LPG cylinder valves – Self-closing (ISO 14245:2019; EN ISO 14245:2019)

HRN EN ISO 15995:2019 en pr  
Plinske boce – Specifikacije i ispitivanje ventila boca za UNP – Ručno pokretani ventili (ISO 15995:2019; EN ISO 15995:2019)  
Gas cylinders – Specifications and testing of LPG cylinder valves – Manually operated (ISO 15995:2019; EN ISO 15995:2019)

HRN EN 16125:2019 en pr  
Oprema i pribor za UNP – Cjevovodi i nosači – UNP tekuća i parna faza pod tlakom (EN 16125:2019)  
LPG Equipment and Accessories – Pipework systems and supports – LPG in liquid phase and vapour pressure phase (EN 16125:2019)

## **HZN/TO 568, Analiza hrane – horizontalne metode, mikrobiologija, posuđe i pribor u kontaktu s hranom**

HRN EN ISO 15216-2:2019 en pr  
Mikrobiologija u lancu hrane – Horizontalna metoda za određivanje virusa hepatitisa A i norovirusa upotrebom RT-PCR u stvarnom vremenu – 2. dio: Metoda dokazivanja (ISO 15216-2:2019; EN ISO 15216-2:2019)  
Microbiology of the food chain – Horizontal method for determination of hepatitis A virus and norovirus in food using real-time RT-PCR – Part 2: Method for detection (ISO 15216-2:2019; EN ISO 15216-2:2019)

HRN EN 15633-1:2019 en pr  
Hrana – Dokazivanje alergena u hrani imunološkim metodama – 1. dio: Opća razmatranja (EN 15633-1:2019)  
Foodstuffs – Detection of food allergens by immunological methods – Part 1: General considerations (EN 15633-1:2019)

HRN EN 15634-1:2019 en pr  
Hrana – Dokazivanje alergena u hrani molekularno biološkim metodama – 1. dio: Opća razmatranja (EN 15634-1:2019)  
Foodstuffs – Detection of food allergens by molecular biological methods – Part 1: General considerations (EN 15634-1:2019)

HRN EN 15634-2:2019 en pr  
Hrana – Dokazivanje alergena u hrani molekularno biološkim metodama – 2. dio: Celer (*Apium graveolens*) – Specifične DNA sekvence u kuhanim kobasicama metodom PCR u stvarnom vremenu (EN 15634-2:2019)  
Foodstuffs – Detection of food allergens by molecular biological methods – Part 2: Celery (*Apium graveolens*) – Detection of a specific DNA sequence in cooked sausages by real-time PCR (EN 15634-2:2019)

HRN EN 15842:2019 en pr  
Hrana – Dokazivanje alergena u hrani – Opća razmatranja i validacija metoda (EN 15842:2019)  
Foodstuffs – Detection of food allergens – General considerations and validation of methods (EN 15842:2019)

HRN EN 17254:2019 en pr  
Hrana – Minimalni zahtjevi za radne značajke za određivanje glutena kompetitivnom imunoenzimskom metodom (ELISA) (EN 17254:2019)  
Foodstuffs – Minimum performance requirements for determination of gluten by ELISA (EN 17254:2019)

HRN EN 17279:2019 en pr  
Hrana – Multirezidualna metoda za provjeru alfatoksina B1, deoksinivalenola, fumonizina B1 i B2, okratoksina A, T-2 toksina, HT-2 toksina i zearalenona u hrani osim hrane za dojenčad i malu djecu, metodom LC-MS/MS (EN 17279:2019)  
Foodstuffs – Multimethod for the screening of aflatoxin B1, deoxynivalenol, fumonisin B1 and B2, ochratoxin A, T-2 toxin, HT-2 toxin and zearalenone in foodstuffs, excluding foods for infants and young children, by LC-MS/MS (EN 17279:2019)

HRN EN 17280:2019 en pr  
Hrana – Određivanje zearalenona i trihotecena uključujući deoksinivalenol i njegove acetilirane derivate (3-acetil-deoksinivalenol i 15-acetil-deoksinivalenol), nivalenol i toksine T-2 i HT-2 u žitaricama i proizvodima od žitarica metodom LC-MS/MS (EN 17280:2019)  
Foodstuffs – Determination of zearalenone and trichothecenes including deoxynivalenol and its acetylated derivatives (3-acetyl-deoxynivalenol and 15-acetyl-deoxynivalenol), nivalenol T-2 toxin and HT-2 toxin in cereals and cereal products by LC-MS/MS (EN 17280:2019)

## **HZN/TO 569, Hrana za životinje**

HRN EN 17256:2019 en pr  
Hrana za životinje: Metode uzorkovanja i analize – Određivanje ergot alkaloida i tropan alkaloida u krmivima i krmnim smjesama metodom LC-MS/MS (EN 17256:2019)  
Animal feeding stuffs: Methods of sampling and analysis – Determination of ergot alkaloids and tropane alkaloids in feed materials and compound feeds by LC-MS/MS (EN 17256:2019)

## **HZN/TO 571, Sport, igrališta i ostali rekreacijski sadržaji i oprema**

HRN EN 1176-5:2019 en pr  
Oprema i podloge za igrališta – 5. dio: Dodatni posebni sigurnosni zahtjevi i metode ispitivanja za vrtljke (EN 1176-5:2019)  
Playground equipment and surfacing – Part 5: Additional specific safety requirements and test methods for carousels (EN 1176-5:2019)

HRN EN 14960-2:2019 en pr  
Oprema za igru na napuhavanje – 2. dio: Dodatni sigurnosni zahtjevi za jastuke za skakanje namijenjene trajnoj ugradnji (EN 14960-2:2019)  
Inflatable play equipment – Part 2: Additional safety requirements for inflatable bouncing pillows intended for permanent installation (EN 14960-2:2019)

HRI CEN/TR 17207:2019 en pr  
Igrališta i površine za rekreaciju – Okvir za utvrđivanje kompetencija inspektora za igrališta (CEN/TR 17207:2018)  
Playground and recreational areas – Framework for the competence of playground inspectors (CEN/TR 17207:2018)

## **HZN/TO 577, Metode ispitivanja za karakterizaciju krutih i tekućih sastavnica i opterećenja okoliša**

HRN EN ISO 23611-3:2019 en pr  
Kvaliteta tla – Uzorkovanje beskralježnjaka u tlu – 3. dio: Uzorkovanje i izdvajanje vrsta iz porodice Enchytraeidae (ISO 23611-3:2019; EN ISO 23611-3:2019)  
Soil quality – Sampling of soil invertebrates – Part 3: Sampling and extraction of enchytraeids (ISO 23611-3:2019; EN ISO 23611-3:2019)

## **HZN/TO E2, Rotacijski strojevi**

HRN EN 60034-18-41:2014/A1:2019 en pr  
Rotacijski električni strojevi – Dio 18-41: Električni izolacijski sustavi bez parcijalnih izbijanja (Tip I) u rotacijskim električnim strojevima koji se napajaju iz naponskih pretvarača – Kvalifikacija i ispitivanja za kontrolu kvalitete (IEC 60034-18-41:2014/am1:2019; EN 60034-18-41:2014/A1:2019)  
Rotating electrical machines – Part 18-41: Partial discharge free electrical insulation systems (Type I) used in rotating electrical machines fed from voltage converters – Qualification and quality control tests (IEC 60034-18-41:2014/am1:2019; EN 60034-18-41:2014/A1:2019)

HRN EN IEC 60276:2019 en pr  
Ugljene četkice, držači četkica, komutatori i klizni kolotovi – Definicije i nomenklatura (IEC 60276:2018; EN IEC 60276:2019)  
Carbon brushes, brush holders, commutators and slip-rings – Definitions and nomenclature (IEC 60276:2018; EN IEC 60276:2019)

## **HZN/TO E8, Sustavski vidovi opskrbe električnom energijom**

HRN EN 50160:2012/A2:2019 en pr  
Naponske karakteristike električne energije iz javnih distribucijskih mreža (EN 50160:2010/A2:2019)  
Voltage characteristics of electricity supplied by public electricity networks (EN 50160:2010/A2:2019)

HRN EN 50160:2012/A3:2019 en pr  
Naponske karakteristike električne energije iz javnih distribucijskih mreža (EN 50160:2010/A3:2019)  
Voltage characteristics of electricity supplied by public electricity networks (EN 50160:2010/A3:2019)

## **HZN/TO E15, Čvrsti elektrotehnički izolacijski materijali**

HRN EN IEC 60684-3-214:2019 en pr  
Savitljive izolacijske navlake – 3. dio: Specifikacije za pojedinačne tipove navlake – 214. list: Toplinski skupljajuće poliolefinске navlake, bez usporenog gorenja, debele i srednje debele stijenke (IEC 60684-3-214:2019; EN IEC 60684-3-214:2019)  
Flexible insulating sleeving – Part 3: Specifications for individual types of sleeving – Sheet 214: Heat-shrinkable, polyolefin sleeving, not flame retarded, thick and medium wall (IEC 60684-3-214:2019; EN IEC 60684-3-214:2019)



HRN EN IEC 60684-3-216:2019 en pr  
Savijljive izolacijske navlake – 3. dio: Specifikacije za pojedinačne tipove navlaka – 216. list: Toplinski skupljajuće navlake s usporenim gorenjem i ograničenom opasnošću od vatre (IEC 60684-3-216:2019; EN IEC 60684-3-216:2019)  
Flexible insulating sleeving – Part 3: Specifications for individual types of sleeving – Sheet 216: Heat-shrinkable, flame-retarded, limited-fire-hazard sleeving (IEC 60684-3-216:2019; EN IEC 60684-3-216:2019)

HRN EN IEC 60684-3-247:2019 en pr  
Savijljive izolacijske navlake – 3. dio: Specifikacije za pojedinačne tipove navlaka – 247. list: Toplinski skupljajuće poliolefinske navlake s dvostrukom stijenkom, bez usporenog gorenja, debele i srednje debele stijenke (IEC 60684-3-247:2019; EN IEC 60684-3-247:2019)  
Flexible insulating sleeving – Part 3: Specifications for individual types of sleeving – Sheet 247: Heat-shrinkable, polyolefin sleeving, dual wall, not flame retarded, thick and medium wall (IEC 60684-3-247:2019; EN IEC 60684-3-247:2019)

### **HZN/TO E17, Sklopni i upravljački uređaji**

HRN EN IEC 62271-214:2019 en pr  
Visokonaponska sklopna aparatura – 214. dio: Klasifikacija prema internom električnom luku za sklopnu aparaturu u metalnom kućištu postavljenu na stup, za nazivne napone iznad 1 kV do uključivo 52 kV (IEC 62271-214:2019; EN IEC 62271-214:2019)  
High-voltage switchgear and controlgear – Part 214: Internal arc classification for metal-enclosed pole-mounted switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV (IEC 62271-214:2019; EN IEC 62271-214:2019)

### **HZN/TO E20, Električni kabeli**

HRN EN IEC 61238-1-1:2019 en pr  
Tlačne i mehaničke spojne čahure za energetske kabele – Dio 1-1: Metode ispitivanja i zahtjevi za tlačne i mehaničke spojne čahure za energetske kabele za nazivne napone do 1 kV ( $U_m = 1,2$  kV), ispitane na neizoliranim vodičima (IEC 61238-1-1:2018; EN IEC 61238-1-1:2019)  
Compression and mechanical connectors for power cables – Part 1-1: Test methods and requirements for compression and mechanical connectors for power cables for rated voltages up to 1 kV ( $U_m = 1,2$  kV) tested on non-insulated conductors (IEC 61238-1-1:2018; EN IEC 61238-1-1:2019)

HRN EN IEC 61238-1-2:2019 en pr  
Tlačne i mehaničke spojne čahure za energetske kabele – Dio 1-2: Metode ispitivanja i zahtjevi za tlačne i mehaničke spojne čahure za energetske kabele za nazivne napone do 1 kV ( $U_m = 1,2$  kV), ispitane na izoliranim vodičima (IEC 61238-1-2:2018; EN IEC 61238-1-2:2019)  
Compression and mechanical connectors for power cables – Part 1-2: Test methods and requirements for insulation piercing connectors for power cables for rated voltages up to 1 kV ( $U_m = 1,2$  kV) tested on insulated conductors (IEC 61238-1-2:2018; EN IEC 61238-1-2:2019)

HRN EN IEC 61238-1-3:2019 en pr  
Tlačne i mehaničke spojne čahure za energetske kabele – Dio 1-3: Metode ispitivanja i zahtjevi za tlačne i mehaničke spojne čahure za energetske kabele za nazivne napone iznad 1 kV ( $U_m = 1,2$  kV) do 36 kV ( $U_m = 42$  kV) koji se ispituju na neizoliranim vodičima (IEC 61238-1-3:2018; EN IEC 61238-1-3:2019)  
Compression and mechanical connectors for power cables – Part 1-3: Test methods and requirements for compression and mechanical connectors for power cables for rated voltages above 1 kV ( $U_m = 1,2$  kV) up to 36 kV ( $U_m = 42$  kV) tested on non-insulated conductors (IEC 61238-1-3:2018; EN IEC 61238-1-3:2019)

HRN EN IEC 61238-1-3:2019/A11:2019 en pr  
Tlačne i mehaničke spojne čahure za energetske kabele – Dio 1-3: Metode ispitivanja i zahtjevi za tlačne i mehaničke spojne čahure za energetske kabele za nazivne napone iznad 1 kV ( $U_m = 1,2$  kV) do 36 kV ( $U_m = 42$  kV) koji se ispituju na neizoliranim vodičima (EN IEC 61238-1-3:2019/A11:2019)  
Compression and mechanical connectors for power cables – Part 1-3: Test methods and requirements for compression and mechanical connectors for power cables for rated voltages above 1 kV ( $U_m = 1,2$  kV) up to 36 kV ( $U_m = 42$  kV) tested on non-insulated conductors (EN IEC 61238-1-3:2019/A11:2019)

### **HZN/TO E23, Električni instalacijski pribor**

HRN EN IEC 60934:2019 en pr  
Prekidači za opremu (CBE) (IEC 60934:2019; EN IEC 60934:2019)  
Circuit breakers for equipment (CBE) (IEC 60934:2019; EN IEC 60934:2019)

### **HZN/TO E45, Nuklearna instrumentacija**

HRN EN IEC 62138:2019 en pr  
Nuklearne elektrane – Instrumentacija i upravljanje važni za sigurnost – Aspekti softvera programske podrške računalno utemeljenih sustava za izvođenje funkcija B i C kategorija (IEC 62138:2018; EN IEC 62138:2019)  
Nuclear power plants – Instrumentation and control systems important to safety – Software aspects for computer-based systems performing category B or C functions (IEC 62138:2018; EN IEC 62138:2019)

### **HZN/TO E55, Žice za namote**

HRN EN 60317-20:2014/A1:2019 en pr  
Specifikacije pojedinih vrsta žica za namote – 20. dio: Poliuretanom lakirana lemljiva okrugla bakrena žica, razreda 155 (IEC 60317-20:2013/am1:2019; EN 60317-20:2014/A1:2019)  
Specifications for particular types of winding wires – Part 20: Solderable polyurethane enamelled round copper wire, class 155 (IEC 60317-20:2013/am1:2019; EN 60317-20:2014/A1:2019)

HRN EN 60317-21:2014/A1:2019 en pr  
Specifikacije pojedinih vrsta žica za namote – 21. dio: Poliuretanom lakirana lemljiva okrugla bakrena žica, prekrivena poliamidom, razreda 155 (IEC 60317-21:2013/am1:2019; EN 60317-21:2014/A1:2019)  
Specifications for particular types of winding wires – Part 21: Solderable polyurethane enamelled round copper wire overcoated with polyamide, class 155 (IEC 60317-21:2013/am1:2019; EN 60317-21:2014/A1:2019)

HRN EN 60317-23:2014/A1:2019 en pr  
Specifikacije pojedinih vrsta žica za namote – 23. dio: Poliesterimidom lakirana lemljiva okrugla bakrena žica, razreda 180 (IEC 60317-23:2013/am1:2019; EN 60317-23:2014/A1:2019)  
Specifications for particular types of winding wires – Part 23: Solderable polyesterimide enamelled round copper wire, class 180 (IEC 60317-23:2013/am1:2019; EN 60317-23:2014/A1:2019)

### **HZN/TO E62, Električna oprema u medicinskoj praksi**

HRN EN IEC 60601-2-28:2019 en pr  
Medicinska električna oprema – Dio 2-28: Posebni zahtjevi za osnovnu sigurnost i bitne radne značajke sklopova medicinskih dijagnostičkih rendgenskih cijevi (IEC 60601-2-28:2017; EN IEC 60601-2-28:2019)  
Medical electrical equipment – Part 2-28: Particular requirements for the basic safety and essential performance of X-ray tube assemblies for medical diagnosis (IEC 60601-2-28:2017; EN IEC 60601-2-28:2019)

### **HZN/TO E65, Mjerenje, vođenje i automatizacija industrijskih procesa**

HRN EN 62734:2015/A1:2019 en pr  
Industrijske mreže – Bežična komunikacijska mreža i komunikacijski profili – ISA 100.11a (IEC 62734:2014/am1:2019; EN 62734:2015/A1:2019)  
Industrial networks – Wireless communication network and communication profiles – ISA 100.11a (IEC 62734:2014/am1:2019; EN 62734:2015/A1:2019)

### **HZN/TO E79, Alarmni sustavi**

HRS CLC/TS 50134-9:2019 en pr  
Alarmni sustavi – Socijalni alarmni sustavi – 9. dio: IP komunikacijski protokol (CLC/TS 50134-9:2018)  
Alarm systems – Social alarm systems – Part 9: IP Communications Protocol (CLC/TS 50134-9:2018)

## HZN/TO E81, *Zaštita od munje*

HRN EN IEC 62561-2:2018/Ispr.1:2019 en pr  
Komponente sustava zaštite od munje (LPSC) – 2. dio: Zahtjevi za vodiče i uzemljivače (IEC 62561-2:2018/Corr.1:2019; EN IEC 62561-2:2018/AC:2019)  
Lightning protection system components (LPSC) – Part 2: Requirements for conductors and earth electrodes (IEC 62561-2:2018/Corr.1:2019; EN IEC 62561-2:2018/AC:2019)

## HZN/TO E88, *Vjetroagregati*

HRN EN IEC 61400-3-1:2019 en pr  
Sustavi za proizvodnju energije iz vjetra – Dio 3-1: Izvedbeni zahtjevi za pučinske učvršćene vjetroagregate (IEC 61400-3-1:2019; EN IEC 61400-3-1:2019)  
Wind energy generation systems – Part 3-1: Design requirements for fixed offshore wind turbines (IEC 61400-3-1:2019; EN IEC 61400-3-1:2019)

## HZN/TO E99, *Električne instalacije iznad 1kV izmjenične i 1,5 kV istosmjernje struje*

HRN EN IEC 60071-1:2019 en pr  
Usklađivanje izolacije – 1. dio: Definicije, načela i pravila (IEC 60071-1:2019; EN IEC 60071-1:2019)  
Insulation co-ordination – Part 1: Definitions, principles and rules (IEC 60071-1:2019; EN IEC 60071-1:2019)

## HZN/TO E100, *Audio, video i multimedijски sustavi te njihova oprema*

HRN EN 62760:2016/A1:2019 en pr  
Metoda reprodukcije zvučnog signala za normiranu glasnoću (IEC 62760:2016/am1:2019; EN 62760:2016/A1:2019)  
Audio reproduction method for normalized loudness level (IEC 62760:2016/am1:2019; EN 62760:2016/A1:2019)

## HZN/TO E106, *Elektromagnetska polja u ljudskome okolišu*

HRN EN 50499:2019 en pr  
Postupak procjene izloženosti radnika elektromagnetskim poljima (EN 50499:2019)  
Procedure for the assessment of the exposure of workers to electromagnetic fields (EN 50499:2019)

## HZN/TO E500, *Elektromagnetska kompatibilnost u elektrotehnici i telekomunikacijama*

HRN EN 55016-2-3:2017/A1:2019 en pr  
Specifikacija uređaja i metoda za mjerenja radiosmetnja i otpornosti – Dio 2-3: Metode mjerenja smetnja i otpornosti – Mjerenje zračenih smetnji (CISPR 16-2-3:2016/am1:2019; EN 55016-2-3:2017/A1:2019)  
Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements (CISPR 16-2-3:2016/am1:2019; EN 55016-2-3:2017/A1:2019)

HRN EN IEC 61000-6-4:2019 en pr  
Elektromagnetska kompatibilnost (EMC) – Dio 6-4: Norme srodnih područja – Norma za emisiju za industrijsku okolinu (IEC 61000-6-4:2018; EN IEC 61000-6-4:2019)  
Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments (IEC 61000-6-4:2018; EN IEC 61000-6-4:2019)

## HZN/TO E501, *Elektroakustika i ultrazvuk*

HRN EN IEC 63009:2019 en pr  
Ultrazvuk – Psihoterapijski sustavi – Značajke polja i mjerne metode u frekvencijskom području 20 kHz do 500 kHz (IEC 63009:2019; EN IEC 63009:2019)  
Ultrasonics – Physiotherapy systems – Field specifications and methods of measurement in the frequency range 20 kHz to 500 kHz (IEC 63009:2019; EN IEC 63009:2019)

## HZN/TU A1, *Usluge, proizvodi za kućanstvo i slobodno vrijeme 1*

HRN EN 131-1:2019 en pr  
Ljestve – 1. dio: Nazivi, tipovi, funkcionalne veličine (EN 131-1:2015+A1:2019)  
Ladders – Part 1: Terms, types, functional sizes (EN 131-1:2015+A1:2019)

HRN EN 15017:2019 en pr  
Pogrebne usluge – Zahtjevi (EN 15017:2019)  
Funeral Services – Requirements (EN 15017:2019)

## HZN/TU C1, *Kemikalije, kemijsko inženjerstvo, poljoprivredni i prehrambeni proizvodi 1*

HRN EN ISO 787-13:2019 en pr  
Opće metode ispitivanja pigmentata i punila – 13. dio: Određivanje u vodi topljivih sulfata, klorida i nitrata (ISO 787-13:2019; EN ISO 787-13:2019)  
General methods of test for pigments and extenders – Part 13: Determination of water-soluble sulfates, chlorides and nitrates (ISO 787-13:2019; EN ISO 787-13:2019)

HRN EN ISO 787-15:2019 en pr  
Opće metode ispitivanja pigmentata i punila – 15. dio: Određivanje svjetlostabilnosti sličnih tipova obojenih pigmentata (ISO 787-15:2019; EN ISO 787-15:2019)  
General methods of test for pigments and extenders – Part 15: Comparison of resistance to light of coloured pigments of similar types (ISO 787-15:2019; EN ISO 787-15:2019)

HRN EN 927-3:2019 en pr  
Boje i lakovi – Materijali i sustavi za premazivanje za vanjsko drvo – 3. dio: Ispitivanje prirodnim starenjem (EN 927-3:2019)  
Paints and varnishes – Coating materials and coating systems for exterior wood – Part 3: Natural weathering test (EN 927-3:2019)

HRN EN 927-13:2019 en pr  
Boje i lakovi – Premazna sredstva i premazni sustavi za drvo u vanjskim prostorima – 13. dio: Procjena otpornosti na udar premaza na drvenog podlozi (EN 927-13:2019)  
Paints and varnishes – Coating materials and coating systems for exterior wood – Part 13: Assessment of resistance to impact of a coating on a wooden substrate (EN 927-13:2019)

HRN EN ISO 2808:2019 en pr  
Boje i lakovi – Određivanje debljine filma (ISO 2808:2019; EN ISO 2808:2019)  
Paints and varnishes – Determination of film thickness (ISO 2808:2019; EN ISO 2808:2019)

HRN EN ISO 3233-2:2019 en pr  
Boje i lakovi – Određivanje volumnog postotka nehlapljivih tvari – 2. dio: Metoda određivanja sadržaja nehlapljivih tvari u skladu s normom ISO 3251 i određivanje gustoće suhog filma na presvučenim ispitnim pločama po Arhimedovom načelu (ISO 3233-2:2019; EN ISO 3233-2:2019)  
Paints and varnishes – Determination of the percentage volume of non-volatile matter – Part 2: Method using the determination of non-volatile-matter content in accordance with ISO 3251 and determination of dry film density on coated test panels by the Archimedes principle (ISO 3233-2:2019; EN ISO 3233-2:2019)

HRN EN 13523-11:2019 en pr  
Metali zaštićeni trakom – Metode ispitivanja – 11. dio: Otpornost na otapala (ispitivanje trljanjem) (EN 13523-11:2019)  
Coil coated metals – Test methods – Part 11: Resistance to solvents (rubbing test) (EN 13523-11:2019)

HRN EN 13523-17:2019 en pr  
Metali zaštićeni trakom – Metode ispitivanja – 17. dio: Prionljivost gulivih filmova (EN 13523-17:2019)  
Coil coated metals – Test methods – Part 17: Adhesion of strippable films (EN 13523-17:2019)

HRN EN 13523-19:2019 en pr  
Metali zaštićeni trakom – Metode ispitivanja – 19. dio: Izrada ploča i metoda ispitivanja izlaganjem atmosferskim uvjetima (EN 13523-19:2019)  
Coil coated metals – Test methods – Part 19: Panel design and method of atmospheric exposure testing (EN 13523-19:2019)

HRN EN 14257:2019 en pr  
Adhezivi – Adhezivi za drvo – Određivanje zatezne čvrstoće preklopnih spojeva na povišenoj temperaturi (WATT '91) (EN 14257:2019)  
Adhesives – Wood adhesives – Determination of tensile strength of lap joints at elevated temperature (WATT '91) (EN 14257:2019)

HRN EN 16074:2019 en pr  
Boje i lakovi – Određivanje udjela nehlapivih tvari i brzine prskanja materijala zaštićenih trakom (EN 16074:2019)  
Paints and varnishes – Determination of non-volatile-matter content and spreading rate of coil coating materials (EN 16074:2019)

HRN EN ISO 17059:2019 en pr  
Uljarice – Ekstrakcija ulja i priprava metil estera triglicerida masnih kiselina za analizu plinskom kromatografijom (Brza metoda) (ISO 17059:2019; EN ISO 17059:2019)  
Oilseeds – Extraction of oil and preparation of methyl esters of triglyceride fatty acids for analysis by gas chromatography (Rapid method) (ISO 17059:2019; EN ISO 17059:2019)

HRN EN ISO 17872:2019 en pr  
Boje i lakovi – Smjernice za urezivanje oznaka kroz prevlake na metalnim pločicama pri ispitivanju na koroziju (ISO 17872:2019; EN ISO 17872:2019)  
Paints and varnishes – Guidelines for the introduction of scribe marks through coatings on metallic panels for corrosion testing (ISO 17872:2019; EN ISO 17872:2019)

HRN EN ISO 22633:2019 en pr  
Adhezivi – Ispitne metode za adhezive za podne i zidne obloge – Određivanje dimenzionalnih promjena podnih obloga od linoleuma u kontaktu s adhezivom (ISO 22633:2019; EN ISO 22633:2019)  
Adhesives – Test methods for adhesives for floor coverings and wall coverings – Determination of dimensional changes of a linoleum floor covering in contact with an adhesive (ISO 22633:2019; EN ISO 22633:2019)

HRN EN ISO/ASTM 52902:2019 en pr  
Aditivna proizvodnja – Opća načela – Geometrijska sposobnost za procjenu aditivnih proizvodnih sustava (ISO/ASTM 52902:2019; EN ISO/ASTM 52902:2019)  
Additive manufacturing – Test artifacts – Geometric capability assessment of additive manufacturing systems (ISO/ASTM 52902:2019; EN ISO/ASTM 52902:2019)

HRN EN ISO/ASTM 52910:2019 en pr  
Proizvodnja aditiva – Dizajn – Zahtjevi, smjernice i preporuke (ISO/ASTM 52910:2018; EN ISO/ASTM 52910:2019)  
Additive manufacturing – Design – Requirements, guidelines and recommendations (ISO/ASTM 52910:2018; EN ISO/ASTM 52910:2019)

HRN EN ISO/ASTM 52911-1:2019 en pr  
Aditivna proizvodnja – Dizajn – 1. dio: Lasersko stapanje praškastih slojeva metala (ISO/ASTM 52911-1:2019; EN ISO/ASTM 52911-1:2019)  
Additive manufacturing – Design – Part 1: Laser-based powder bed fusion of metals (ISO/ASTM 52911-1:2019; EN ISO/ASTM 52911-1:2019)

## HRN/TU I2, *Strojarstvo 2*

HRN EN 474-1:2019 en pr  
Strojevi za zemljane radove – Sigurnost – 1. dio: Opći zahtjevi (EN 474-1:2006+A6:2019)  
Earth-moving machinery – Safety – Part 1: General requirements (EN 474-1:2006+A6:2019)

HRN EN ISO 11665-1:2019 en pr  
Mjerenje radioaktivnosti u okolišu – Zrak: radon-222 – 1. dio: Porijeklo radona i njegovih proizvoda kratkotrajnog raspada i pripadajuće metode mjerenja (ISO 11665-1:2019; EN ISO 11665-1:2019)  
Measurement of radioactivity in the environment – Air: radon-222 – Part 1: Origins of radon and its short-lived decay products and associated measurement methods (ISO 11665-1:2019; EN ISO 11665-1:2019)

## HRN/TU M1, *Metalni materijali 1*

HRN EN ISO 3252:2019 en pr  
Metalurgija praha – Terminološki rječnik (ISO 3252:2019; EN ISO 3252:2019)  
Powder metallurgy – Vocabulary (ISO 3252:2019; EN ISO 3252:2019)

## HRN/TU N1, *Nemetalni materijali 1*

HRN EN ISO 20504:2019 en pr  
Fine ceramics (advanced ceramics, advanced technical ceramics) – Mechanical properties of ceramic composites at room temperature – Determination of compressive properties (ISO 20504:2019; EN ISO 20504:2019)

## HRN/TU S1, *Zdravlje, okoliš i medicinska oprema 1*

HRN EN ISO 3630-1:2019 en pr  
Stomatologija – Endodontski instrumenti – 1. dio: Opći zahtjevi (ISO 3630-1:2019; EN ISO 3630-1:2019)  
Dentistry – Endodontic instruments – Part 1: General requirements (ISO 3630-1:2019; EN ISO 3630-1:2019)

HRN EN ISO 3964:2016/A1:2019 en pr  
Stomatologija – Dimenzije spojnice za stomatološke nastavke – Amandman 1: Dimenzije sučelja (ISO 3964:2016/Amd 1:2018; EN ISO 3964:2016/A1:2019)  
Dentistry – Coupling dimensions for handpiece connectors – Amendment 1: Interface dimensions (ISO 3964:2016/Amd 1:2018; EN ISO 3964:2016/A1:2019)

HRN EN ISO 5832-1:2019 en pr  
Kirurški implantati – Metalni materijali – 1. dio: Kovani nehrđajući čelik (ISO 5832-1:2016; EN ISO 5832-1:2019)  
Implants for surgery – Metallic materials – Part 1: Wrought stainless steel (ISO 5832-1:2016; EN ISO 5832-1:2019)

HRN EN ISO 5832-6:2019 en pr  
Kirurški implantati – Metalni materijali – 6. dio: Kovana legura kobalta, nikla, kroma i molibdena (ISO 5832-6:1997; EN ISO 5832-6:2019)  
Implants for surgery – Metallic materials – Part 6: Wrought cobalt-nickel-chromium-molybdenum alloy (ISO 5832-6:1997; EN ISO 5832-6:2019)

HRN EN ISO 5832-7:2019 en pr  
Kirurški implantati – Metalni materijali – 7. dio: Legura kobalta, kroma, nikla, molibdena i željeza pogodna za kovanje i hladno oblikovanje (ISO 5832-7:2016; EN ISO 5832-7:2019)  
Implants for surgery – Metallic materials – Part 7: Forgeable and cold-formed cobalt-chromium-nickel-molybdenum-iron alloy (ISO 5832-7:2016; EN ISO 5832-7:2019)

HRN EN ISO 20896-1:2019 en pr  
Stomatologija – Uređaji za uzimanje digitalnoga dentalnog otiska – 1. dio: Metode mjerenja točnosti (ISO 20896-1:2019; EN ISO 20896-1:2019)  
Dentistry – Digital impression devices – Part 1: Methods for assessing accuracy (ISO 20896-1:2019; EN ISO 20896-1:2019)

## HRN/TU T1, *Prijevoz, rukovanje materijalima i pakiranje 1*

HRN EN 3685:2019 en pr  
Zrakoplovstvo – Matice od čelika otpornog na toplinu FE-PA2601 (A286) – Klasifikacija: 1100 MPa/650 °C – Tehnička specifikacija (EN 3685:2019)  
Aerospace series – Bolts in heat resisting steel FE-PA2601 (A286) – Classification: 1 100 MPa/650 °C – Technical specification (EN 3685:2019)

HRN EN 3745-404:2019 en pr  
Zrakoplovstvo – Vlakna i kabeli, optički, za zrakoplove – Metode ispitivanja – 404. dio: Toplinski šok (EN 3745-404:2019)  
Aerospace series – Fibres and cables, optical, aircraft use – Test methods – Part 404: Thermal shock (EN 3745-404:2019)

HRN EN 4476:2019 en pr  
Zrakoplovstvo – Boje i lakovi – Pomoćni premaz za hladnu konzervaciju (EN 4476:2019)  
Aerospace series – Paints and varnishes – Cold curing intermediate coat (EN 4476:2019)

HRN EN 4604-003:2019 en pr  
Zrakoplovstvo – Kabel, električni, za prijenos signala – Dio 003: Kabel, koaksijalni, 50 oma, 200 °C, tip WZ – Norma za proizvod (EN 4604-003:2019)  
Aerospace series – Cable, electrical, for signal transmission – Part 003: Cable, coaxial, 50 Ohm, 200 °C, type WZ – Product standard (EN 4604-003:2019)

HRN EN 4604-006:2019 en pr  
Zrakoplovstvo – Kabel, električni, za prijenos signala – Dio 006: Kabel, koaksijalni, 50 oma, 200 °C, tip WM – Norma za proizvod (EN 4604-006:2019)  
Aerospace series – Cable, electrical, for signal transmission – Part 006: Cable, coaxial, 50 ohms, 200 °C, type WM – Product standard (EN 4604-006:2019)

HRN EN 4827:2019 en pr  
Zrakoplovstvo – Anodizacija aluminija i legura aluminija bez šesterovalentnog kroma (EN 4827:2019)  
Aerospace series – Hexavalent chromium free anodizing of aluminium and aluminium alloys (EN 4827:2019)

## HZN/TU W1, Energetska elektrotehnika 1

HRN EN 50342-2:2019 en pr  
Olovni akumulatori za pokretanje – 2. dio: Dimenzije akumulatora i označavanje stezaljki (EN 50342-2:2019)  
Lead-acid starter batteries – Part 2: Dimensions of batteries and marking of terminals (EN 50342-2:2019)

HRN EN IEC 61810-10:2019 en pr  
Elektromehanički osnovni releji – 10. dio: Dodatni funkcionalni aspekti i sigurnosni zahtjevi za releje visokog kapaciteta (IEC 61810-10:2019; EN IEC 61810-10:2019)  
Electromechanical elementary relays – Part 10: Additional functional aspects and safety requirements for high-capacity relays (IEC 61810-10:2019; EN IEC 61810-10:2019)

### 1.3 Prijedlozi za prihvaćanje stranih norma u izvorniku

Temeljem Zakona o normizaciji (Narodne novine 80/2013) Hrvatski zavod za norme na prijedlog tehničkih odbora objavljuje raspravu o prijedlogu za prihvaćanje stranih norma (međunarodnih, europskih i njemačkih norma) kao hrvatskih norma.

Pisane primjedbe na prijedloge za prihvaćanje norma dostavljaju se Hrvatskome zavodu za norme (uz naznaku tehničkog odbora i referencijsku oznaku norme) u roku od 30 dana od dana objave rasprave u službenom glasilu Hrvatskoga zavoda za norme (HZN e-glasilo).

#### HZN/TO 22, Cestovna vozila

prEN 13423 en  
Natural gas vehicles – Requirements for NGV workshops and the management of compressed natural gas (CNG) vehicles  
Vozila na prirodni plin – Zahtjevi za radionice za vozila na prirodni plin

#### HZN/TO 28, Naftni proizvodi i maziva

prEN ISO 5165 en  
Petroleum products – Determination of the ignition quality of diesel fuels – Cetane engine method (ISO/DIS 5165:2019)  
Naftni proizvodi – Određivanje sposobnosti paljenja dizelskih goriva – Cetanski broj prema motornoj metodi (ISO/DIS 5165:2019)

#### HZN/TO 34, Poljoprivredni i prehrambeni proizvodi

prEN ISO 7540 en  
Spices – Ground sweet and hot paprika (*Capsicum annuum* L. and *Capsicum frutescens* L.) – Specifications (ISO/DIS 7540:2019)  
Začini – Mljevena slatka i ljuta paprika (*Capsicum annuum* L. i *Capsicum frutescens* L.) – Specifikacije (ISO/DIS 7540:2019)

prEN ISO 7541 en  
Spices and condiments – Spectrophotometric determination of the extractable colour in paprika (ISO/DIS 7541:2019)  
Mirodije i začini – Spektrofotometrijsko određivanje ekstrahirane boje u paprici (ISO/DIS 7541:2019)

#### HZN/TO 71, Beton

prEN 12390-1 en  
Testing hardened concrete – Part 1: Shape, dimensions and other requirements for specimens and moulds  
Ispitivanje očvrsloga betona – 1. dio: Oblik, dimenzije i drugi zahtjevi za uzorke i kalupe

prEN 12390-13 en  
Testing hardened concrete – Part 13: Determination of secant modulus of elasticity in compression  
Ispitivanje očvrsloga betona – 13. dio: Određivanje sekantnog modula elastičnosti pri tlaku

prEN 12504-2 en  
Testing concrete in structures – Part 2: Non-destructive testing – Determination of rebound number  
Ispitivanje betona u konstrukcijama – 2. dio: Nerazorno ispitivanje – Određivanje indeksa sklerometra

prEN 12504-4 en  
Testing concrete in structures – Part 4: Determination of ultrasonic pulse  
Ispitivanje betona u konstrukcijama – 4. dio: Određivanje ultrazvučnog impulsa

#### HZN/TO 86, Uređaji za hlađenje, klimatizaciju i dizalice topline

EN 378-1:2016/prA1:2019 en  
Refrigerating systems and heat pumps – Safety and environmental requirements – Part 1: Basic requirements, definitions, classification and selection criteria  
Rashladni sustavi i dizalice topline – Zahtjevi s obzirom na sigurnost i okoliš – 1. dio: Osnovni zahtjevi, definicije, razredba i kriteriji odabira

EN 378-2:2016/prA1 en  
Refrigerating systems and heat pumps – Safety and environmental requirements – Part 2: Design, construction, testing, marking and documentation  
Rashladni sustavi i dizalice topline – Zahtjevi s obzirom na sigurnost i okoliš – 2. dio: Projektiranje, izvedba, ispitivanje, označavanje i dokumentacija

EN 378-3:2016/prA1 en  
Refrigerating systems and heat pumps – Safety and environmental requirements – Part 3: Installation site and personal protection  
Rashladni sustavi i dizalice topline – Zahtjevi s obzirom na sigurnost i okoliš – 3. dio: Mjesto instalacije i osobna zaštita

prEN 17432 en  
Packaged refrigerating units for walk-in cold rooms – Classification, performance and energy consumption testing

#### HZN/TO 92, Zaštita od požara

prEN 15882-5 en  
Extended application of results from fire resistance tests for service installations – Part 5: Combined penetration seals  
Proširena primjena rezultata ispitivanja otpornosti na požar servisnih instalacija – 5. dio: Kombinirana penetracijska brtvila

#### HZN/TO 120, Koža i obuća

prEN ISO 16181-1 en  
Footwear – Critical substances potentially present in footwear and footwear components – Part 1: Determination of phthalate with solvent extraction (ISO/DIS 16181-1:2019)  
Obuća – Kritične tvari potencijalno prisutne u obući i dijelovima obuće – 1. dio: Određivanje ftalata u materijalima za obuću (ISO/DIS 16181-1:2019)

prEN ISO 16181-2 en  
Footwear – Critical substances potentially present in footwear and footwear components – Part 2: Determination of phthalate without solvent extraction (ISO/DIS 16181-2:2019)

#### HZN/TO 121, Anestetička i respiracijska oprema

prEN ISO 80601-2-13 en  
Medical electrical equipment – Part 2-13: Particular requirements for basic safety and essential performance of an anaesthetic workstation (ISO/DIS 80601-2-13:2019)  
Medicinska električna oprema – Dio 2-13: Posebni zahtjevi za osnovnu sigurnost i nužne značajke anestezioloških radnih stanica (ISO/DIS 80601-2-13:2019)

prEN ISO 80601-2-70 en  
Medical electrical equipment – Part 2-70: Particular requirements for basic safety and essential performance of sleep apnoea breathing therapy equipment (ISO/DIS 80601-2-70:2019)

## HZN/TO 135, Nerazorna ispitivanja

prEN 13477-2 en  
Non-destructive testing – Acoustic emission testing – Equipment characterisation – Part 2: Verification of operating characteristics  
Nerazorno ispitivanje – Ispitivanje akustičkom emisijom – Karakterizacija opreme – 2. dio: Provjeravanje radnih značajka

prEN ISO 14096-1 en  
Non-destructive testing – Qualification of radiographic film digitisation systems – Part 1: Definitions, quantitative measurements of image quality parameters, standard reference film and qualitative control (ISO 14096-1:2005)  
Nerazorno ispitivanje – Kvalifikacija sustava za digitalizaciju radiografskog filma – 1. dio: Definicije, kvantitativna mjerenja parametara kvalitete slike, standardni referentni film i kvalitativna kontrola (ISO 14096-1:2005)

prEN ISO 14096-2 en  
Non-destructive testing – Qualification of radiographic film digitisation systems – Part 2: Minimum requirements (ISO 14096-2:2005)  
Nerazorno ispitivanje – Kvalifikacija sustava za digitalizaciju radiografskog filma – 2. dio: Minimalni zahtjevi (ISO 14096-2:2005)

prEN ISO 16526-1 en  
Non-destructive testing – Measurement and evaluation of the X-ray tube voltage – Part 1: Voltage divider method (ISO 16526-1:2011)  
Nerazorno ispitivanje – Mjerenje i ocjena napona rendgenske cijevi – 1. dio: Metoda djelitelja napona (ISO 16526-1:2011)

prEN ISO 16526-2 en  
Non-destructive testing – Measurement and evaluation of the X-ray tube voltage – Part 2: Constancy check by the thick filter method (ISO 16526-2:2011)  
Nerazorno ispitivanje – Mjerenje i ocjena napona rendgenske cijevi – 2. dio: Metoda provjere stalnosti napona uporabom debelog filtra (ISO 16526-2:2011)

prEN ISO 16526-3 en  
Non-destructive testing – Measurement and evaluation of the X-ray tube voltage – Part 3: Spectrometric method (ISO 16526-3:2011)  
Nerazorno ispitivanje – Mjerenje i ocjena napona rendgenske cijevi – 3. dio: Spektrometrijska metoda (ISO 16526-3:2011)

## HZN/TO 138, Plastične cijevi, spojnice i ventili za prijenos tekućina

prEN ISO 6259-2 en  
Thermoplastics pipes – Determination of tensile properties – Part 2: Pipes made of unplasticized poly(vinyl chloride) (PVC-U), oriented unplasticized poly(vinyl chloride) (PVC-O), chlorinated poly(vinyl chloride) (PVC-C) and high-impact poly(vinyl chloride) (PVC-HI) (ISO/DIS 6259-2:2019)

## HZN/TO 147, Kvaliteta vode

prEN ISO 22515 en  
Water quality – Iron-55 – Test method using liquid scintillation counting (ISO/DIS 22515:2019)  
Kvaliteta vode – Željezo-55 – Metoda ispitivanja s upotrebom tekućinske scintilacije (ISO/DIS 22515:2019)

## HZN/TO 172, Optika i optički instrumenti

prEN ISO 19980 en  
Ophthalmic instruments – Corneal topographers (ISO/DIS 19980:2019)  
Oftalmološki instrumenti – Kornealni topograferi (ISO/DIS 19980:2019)

## HZN/TO 181, Sigurnost igraćaka i proizvodi za djecu

EN 71-7:2014+A2:2018/prA3 en  
Safety of toys – Part 7: Finger paints – Requirements and test methods  
Sigurnost igraćaka – 7. dio: Bojila za bojenje prstima – Zahtjevi i metode ispitivanja

prEN 71-13 en  
Safety of toys – Part 13: Olfactory board games, cosmetic kits and gustative games  
Sigurnost igraćaka – 13. dio: Mirisne ploče za igru, kozmetički setovi i setovi za kušanje

## HZN/TO 207, Upravljanje okolišem

EN ISO 14040:2006/prA1 en  
Environmental management – Life cycle assessment – Principles and framework (ISO 14040:2006/DAMd 1:2019)  
Upravljanje okolišem – Procjena životnog ciklusa (LCA) – Načela i okvir rada (ISO 14040:2006/DAMd 1:2019)

EN ISO 14044:2006/prA2 en  
Environmental management – Life cycle assessment – Requirements and guidelines (ISO 14044:2006/DAMd 2:2019)  
Upravljanje okolišem – Procjena životnog ciklusa (LCA) – Zahtjevi i smjernice (ISO 14044:2006/DAMd 2:2019)

prEN ISO 14050 en  
Environmental management – Vocabulary (ISO/DIS 14050:2019)  
Upravljanje okolišem – Rječnik (ISO/DIS 14050:2019)

## HZN/TO 221, Geosintetici

prEN 12225 en  
Geosynthetics – Method for determining the microbiological resistance by a soil burial test  
Geotekstilni – Metoda za određivanje mikrobiološke otpornosti postupkom zakapanja u tlo

## HZN/TO 228, Usluge u turizmu

ISO 13687-1:2017 en  
Tourism and related services – Yacht harbours – Part 1: Minimum requirements for basic service level harbours

ISO 13687-2:2017 en  
Tourism and related services – Yacht harbours – Part 2: Minimum requirements for intermediate service level harbours

ISO 13687-3:2017 en  
Tourism and related services – Yacht harbours – Part 3: Minimum requirements for high service level harbours

ISO 20410:2017 en  
Tourism and related services – Bareboat charter – Minimum service and equipment requirements

ISO 21401:2018 en  
Tourism and related services – Sustainability management system for accommodation establishments – Requirements

## HZN/TO 506, Materijali, oprema i konstrukcije za naftnu industriju, prirodni plin i geotermalnu vodu

EN ISO 6141:2015/prA1 en  
Gas analysis – Contents of certificates for calibration gas mixtures – Amendment 1: Cross reference list to ISO Guide 31:2015 (ISO 6141:2015/DAMd 1:2019)

prEN ISO 10426-2 en  
Petroleum and natural gas industries – Cements and materials for well cementing – Part 2: Testing of well cements (ISO/DIS 10426-2:2019)  
Industrija nafte i prirodnoga plina – Cementi i materijali za cementaciju bušotina – 2. dio: Ispitivanje bušotinskih cementa (ISO/DIS 10426-2:2019)

EN ISO 11961:2018/prA1 en  
Petroleum and natural gas industries – Steel drill pipe (ISO 11961:2018/DAMd 1:2019)  
Industrija nafte i prirodnoga plina – Čelična cijev za bušenje (ISO 11961:2018/DAMd 1:2019)

## HZN/TO 509, Cestovna oprema

EN 1793-6:2018/prA1 en  
Road traffic noise reducing devices – Test method for determining the acoustic performance – Part 6: Intrinsic characteristics – In situ values of airborne sound insulation under direct sound field conditions  
Barijere za zaštitu od buke s cesta – Metoda ispitivanja za određivanje akustičkih svojstava – 6. dio: Unutarnje značajke – In situ vrijednosti izolacije od vanjske buke u uvjetima neposrednog zvučnog polja

## HZN/TO 518, Podovi, stropovi i zidne obloge

prEN 266 en  
Wall coverings in roll form – Specification for textile wall coverings  
Zidni pokrovi u rolama – Specifikacije za tekstilne zidne pokrove

prEN 17435 en

Surfaces for sports areas – Test method for the determination of Head Injury Criterion (HIC) and Critical Fall Height (CFH)  
Površine sportskih terena – Metoda ispitivanja za određivanje kriterija za ozljede glave i kritičnu visinu pada

### **HZN/TO 524, *Inteligentni transportni sustavi***

ISO 15622:2018 en

Intelligent transport systems – Adaptive cruise control systems – Performance requirements and test procedures  
Informacije o prometu i kontrolni sustavi – Sustavi za automatsku prilagodbu brzine kretanja – Zahtjevane značajke i ispitni postupci

prEN 16157-5 en

Intelligent transport systems – DATEX II data exchange specifications for traffic management and information – Part 5: Measured and elaborated data publications  
Inteligentni transportni sustavi – DATEX II specifikacija za razmjenu podataka za upravljanje prometom i informiranje – 5. dio: Objave za izmjerene i obrađene podatke

prEN ISO 19299 en

Electronic fee collection – Security framework (ISO/DIS 19299:2019)  
Elektronička naplata – Sigurnosni okvir (ISO/DIS 19299:2019)

### **HZN/TO 528, *Oprema za željeznice***

prEN ISO 3381 en

Railway applications – Acoustics – Noise measurement inside railbound vehicles (ISO/DIS 3381:2019)  
Željeznički sustav – Akustika – Mjerenje buke u željezničkim vozilima (ISO/DIS 3381:2019)

### **HZN/TO 531, *Plastika i guma***

prEN 12115 en

Rubber and thermoplastics hoses and hose assemblies for liquid or gaseous chemicals – Specification  
Gumena i plastomerna crijeva i crijevni uređaji za tekuće ili plinovite kemikalije – Specifikacija

EN 13766:2018/prA1 en

Thermoplastic multi-layer (non-vulcanized) hoses and hose assemblies for the transfer of liquid petroleum gas and liquefied natural gas – Specification  
Plastomerna, višeslojna, neumrežena crijeva i crijevni pribori za prijenos ukapljenoga naftnog plina i ukapljenoga prirodnog plina – Specifikacija

prEN ISO 19679 en

Plastics – Determination of aerobic biodegradation of non-floating plastic materials in a seawater/sediment interface – Method by analysis of evolved carbon dioxide (ISO/DIS 19679:2019)  
Plastika – Određivanje aerobne biorazgradnje neplutajućih plastičnih materijala u sučelju morske vode/sedimenta – Metoda analize razvijenog ugljikovog dioksida (ISO/DIS 19679:2019)

### **HZN/TO 534, *Spremnici za teret***

EN ISO 23208:2019/prA1 en

Cryogenic vessels – Cleanliness for cryogenic service (ISO 23208:2017/DAMd 1:2019)  
Kriogenične posude – Čistoća površina posuda za kriogenične uvjete (ISO 23208:2017/DAMd 1:2019)

### **HZN/TO 536, *Vrata, prozori i staklo u graditeljstvu***

prEN 1063 en

Glass in building – Security glazing – Testing and classification of resistance against bullet attack  
Staklo u graditeljstvu – Sigurnosno staklo – Ispitivanje i razredba otpornosti na propucavanje

prEN 12209 en

Building hardware – Mechanically operated locks and locking plates – Characteristics and test methods  
Građevni okovi – Mehaničke brave i pločice za zaključavanje – Zahtjevi i metode ispitivanja

prEN 15685 en

Building hardware – Requirements and test methods – Multipoint locks, latches and locking plates – Characteristics and test methods

prEN 16759 en

Bonded Glazing for doors, windows and curtain walling – Verification of mechanical performance of bonding on aluminium and steel surfaces  
Ostakljivanje vrata, prozora i ovisjenih fasada lijepljenjem – Provjera mehaničkih svojstava lijepljenja na površinama aluminija i čelika

### **HZN/TO 551, *Gradnja***

prEN ISO 19650-3 en

Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) – Information management using building information modelling – Part 3: Operational phase of assets (ISO/DIS 19650-3:2019)  
Organizacija i digitalizacija informacija o zgradama i inženjerskim građevinama uključujući modeliranje informacija o građevinama (BIM) – Upravljanje informacijama modeliranjem informacija o građevinama – 3. dio: Operativna faza imovine (ISO/DIS 19650-3:2019)

### **HZN/TO 556, *Osobna zaštitna oprema***

prEN ISO 12609-1 en

Eye and face protection against intense light sources used on humans and animals for cosmetic and medical applications – Part 1: Specification for products (ISO/DIS 12609-1:2019)

### **HZN/TO 559, *Zaporni, regulacijski i sigurnosni uređaji***

EN 12516-2:2014/prA1:2019 en

Industrial valves – Shell design strength – Part 2: Calculation method for steel valve shells  
Industrijski zaporni uređaji – Projektna čvrstoća kućišta – 2. dio: Metoda proračuna za kućišta zapornih uređaja od čelika

### **HZN/TO 560, *Tekstilni proizvodi***

prEN ISO 1833-1 en

Textiles – Quantitative chemical analysis – Part 1: General principles of testing (ISO/DIS 1833-1:2019)  
Tekstil – Kvantitativna kemijska analiza – 1. dio: Opća načela ispitivanja (ISO/DIS 1833-1:2019)

prEN ISO 1833-2 en

Textiles – Quantitative chemical analysis – Part 2: Ternary fibre mixtures (ISO/DIS 1833-2:2019)  
Tekstil – Kvantitativna kemijska analiza – 2. dio: Trokomponentne (ISO/DIS 1833-2:2019)

prEN ISO 1833-29 en

Textiles – Quantitative chemical analysis – Part 29: Mixtures of polyamide with polypropylene/polyamide bicomponent (method using sulfuric acid) (ISO/DIS 1833-29:2019)

prEN ISO 22744-2 en

Textiles and textile products – Determination of organotin compounds – Part 2: Direct method using liquid chromatography (ISO/DIS 22744-2:2019)

### **HZN/TO 561, *Kotlovi, posude pod tlakom, cjevovodi i plinske boce***

prEN 12493 en

LPG equipment and accessories – Welded steel pressure vessels for LPG road tankers – Design and manufacture  
Oprema i pribor za UNP – Zavarene čelične tlačne posude za UNP spremnike za cestovna vozila – Projektiranje i proizvodnja

### **HZN/TO 568, *Analiza hrane – horizontalne metode, mikrobiologija, posude i pribor u kontaktu s hranom***

prEN 13834 en

Cookware – Ovenware for use in traditional domestic ovens  
Posude za kuhanje hrane – Posude za pećnice u kućanstvu

prEN 17203 en

Foodstuffs – Determination of citrinin in food by HPLC-MS/MS  
Hrana – Određivanje citrinina u hrani metodom HPLC-MS/MS

## **HZN/TO 572, Kruta oporabljena goriva**

prEN ISO 21637 en  
Solid recovered fuels – Terminology, definitions and descriptions (ISO/DIS 21637:2019)  
Kruta oporabljena goriva – Nazivlje, definicije i opisi (ISO/DIS 21637:2019)

## **HZN/TO 577, Metode ispitivanja za karakterizaciju krutih i tekućih sastavnica i opterećenja okoliša**

prEN ISO 11063 en  
Soil quality – Direct extraction of soil DNA (ISO/DIS 11063:2019)  
Kvaliteta tla – Direktna ekstrakcija DNK iz uzoraka tla (ISO/DIS 11063:2019)

prEN 13656 en  
Soil, treated biowaste, sludge and waste – Digestion with a hydrochloric (HCl), nitric (HNO<sub>3</sub>) and tetrafluoroboric (HBF<sub>4</sub>) or hydrofluoric (HF) acid mixture for subsequent determination of elements  
Tlo, obrađeni biootpad, mulj i otpad – Razgradnja pomoću smjese kloridne (HCl), dušične (HNO<sub>3</sub>) i tetrafluoroboratne (HBF<sub>4</sub>) ili fluoridne (HF) kiseline za naknadno određivanje elemenata

## **HZN/TO E9, Električna oprema za željeznicu**

prEN IEC 61133:2019 en  
Railway applications – Rolling stock – Testing of rolling stock on completion of construction and before entry into service (IEC 61133:2016)  
Željeznički sustav – Željeznička vozila – Ispitivanje željezničkih vozila nakon završetka izrade i prije stavljanja u promet (IEC 61133:2016)

## **HZN/TO E10, Fluidi za primjenu u elektrotehnici**

prEN IEC 62975:2019 en  
Natural esters – Guidelines for maintenance and use in electrical equipment (IEC 62975:201X)  
Prirodni esteri – Smjernice za održavanje i uporabu u električnoj opremi (IEC 62975:201X)

## **HZN/TO E14, Energetski transformatori**

prEN IEC 60076-22-5:2019 en  
Power transformers – Part 22-5: Power transformer and reactor fittings – Pumps (IEC 60076-22-5:201X)  
Energetski transformatori – Dio 22-5: Oprema za energetske transformatore i prigušnice – Pumpe (IEC 60076-22-5:201X)

prEN IEC 60076-22-6:2019 en  
Power transformers – Part 22-6: Power transformer and reactor fittings – Fans (IEC 60076-22-6:201X)  
Energetski transformatori – Dio 22-6: Oprema za energetske transformatore i prigušnice – Ventilatori (IEC 60076-22-6:201X)

## **HZN/TO E20, Električni kabeli**

prHD 361 S4 en  
System for cable designation  
Način označivanja kabela

## **HZN/TO E23, Električni instalacijski pribor**

EN 61534-1:2011/prA2:2019 en  
Powertrack systems – Part 1: General requirements (IEC 61534-1:2011/am2:201X)  
Energetski tračnički sustavi – 1. dio: Opći zahtjevi (IEC 61534-1:2011/am2:201X)

## **HZN/TO E31, Eksplozivne atmosfere**

prEN 50270 en  
Electromagnetic compatibility – Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen  
Elektromagnetska kompatibilnost – Električni uređaji za otkrivanje i mjerenje zapaljivih plinova, otrovnih plinova ili kisika

## **HZN/TO E61, Sigurnost električnih kućanskih i sličnih aparata**

prEN IEC 60335-2-60:201X/prA en  
Household and similar electrical appliances – Safety – Part 2-60: Particular requirements for whirlpool baths and whirlpool spas  
Kućanski i slični električni aparati – Sigurnost – Dio 2-60: Posebni zahtjevi za vrtložne kade i kupke

## **HZN/TO E81, Zaštita od munje**

prEN IEC 62793:2019 en  
Protection against lightning – Thunderstorm warning systems (IEC 62793:201X)  
Zaštita od munje – Sustav upozorenja na grmljavinske oluje (IEC 62793:201X)

## **HZN/TO E500, Elektromagnetska kompatibilnost u elektrotehnici i telekomunikacijama**

prEN IEC 61000-4-20:2019 en  
Electromagnetic compatibility (EMC) – Part 4-20: Testing and measurement techniques – Emission and immunity testing in transverse electromagnetic (TEM) waveguides (IEC 61000-4-20:201X)  
Elektromagnetska kompatibilnost (EMC) – Dio 4-20: Ispitne i mjerne tehnike – Ispitivanje emisije i otpornosti u poprečnim elektromagnetskim (TEM) valovodima (IEC 61000-4-20:201X)

prEN IEC 61000-6-3:2019 en  
Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for equipment in residential environments (IEC 61000-6-3:201X)  
Elektromagnetska kompatibilnost (EMC) – Dio 6-3: Norme srodnih područja – Norma emisije za opremu u stambenoj okolini (IEC 61000-6-3:201X)

prEN IEC 61000-6-8:2019 en  
Electromagnetic compatibility (EMC) – Part 6-8: Generic standards – Emission standard for professional equipment in commercial and light-industrial locations (IEC 61000-6-8:201X)  
Elektromagnetska kompatibilnost (EMC) – Dio 6-8: Norme srodnih područja – Norma emisije za profesionalnu opremu u poslovnim i lakoindustrijskim lokacijama (IEC 61000-6-8:201X)

## **HZN/TO E501, Elektroakustika i ultrazvuk**

prEN IEC 60645-3:2019 en  
Electroacoustics – Audiometric equipment – Part 3: Test signals of short duration (IEC 60645-3:201X)  
Elektroakustika – Audiometrijska oprema – 3. dio: Kratkotrajni ispitni signali (IEC 60645-3:201X)

## **HZN/TU C1, Kemikalije, kemijsko inženjerstvo, poljoprivredni i prehrambeni proizvodi 1**

prEN ISO 1524 en  
Paints, varnishes and printing inks – Determination of fineness of grind (ISO/DIS 1524:2019)  
Boje, lakovi i tiskarske boje – Određivanje finoće čestica (ISO/DIS 1524:2019)

prEN ISO 2409 en  
Paints and varnishes – Cross-cut test (ISO/DIS 2409:2019)  
Boje i lakovi – Ispitivanje zarezivanjem mrežice (ISO/DIS 2409:2019)

prEN ISO 4625-1 en  
Binders for paints and varnishes – Determination of softening point – Part 1: Ring-and-ball method (ISO/DIS 4625-1:2019)  
Veziva za boje i lakove – Određivanje točke razmekšanja – 1. dio: Metoda prstena i kuglice (ISO/DIS 4625-1:2019)

prEN ISO 11127-1 en  
Preparation of steel substrates before application of paints and related products – Test methods for non-metallic blast-cleaning abrasives – Part 1: Sampling (ISO/DIS 11127-1:2019)  
Priprema čeličnih podloga prije nanošenja boja i srodnih proizvoda – Ispitne metode za nemetalne abrazive za čišćenje mlazom – 1. dio: Uzorkovanje (ISO/DIS 11127-1:2019)

prEN ISO 11127-2 en

Preparation of steel substrates before application of paints and related products – Test methods for non-metallic blast-cleaning abrasives – Part 2: Determination of particle size distribution (ISO/DIS 11127-2:2019)  
Priprema čeličnih podloga prije nanošenja boja i srodnih proizvoda – Ispitne metode za nemetalne abrazive za čišćenje mlazom – 2. dio: Određivanje raspodjele veličine čestica (ISO/DIS 11127-2:2019)

prEN ISO 11127-3 en

Preparation of steel substrates before application of paints and related products – Test methods for non-metallic blast-cleaning abrasives – Part 3: Determination of apparent density (ISO/DIS 11127-3:2019)  
Priprema čeličnih podloga prije nanošenja boja i srodnih proizvoda – Ispitne metode za nemetalne abrazive za čišćenje mlazom – 3. dio: Određivanje prividne gustoće (ISO/DIS 11127-3:2019)

prEN ISO 11127-4 en

Preparation of steel substrates before application of paints and related products – Test methods for non-metallic blast-cleaning abrasives – Part 4: Assessment of hardness by a glass slide test (ISO/DIS 11127-4:2019)  
Priprema čeličnih podloga prije nanošenja boja i srodnih proizvoda – Ispitne metode za nemetalne abrazive za čišćenje mlazom – 4. dio: Ocjena tvrdoće ispitivanjem s pomoću stakla (ISO/DIS 11127-4:2019)

prEN ISO 11127-5 en

Preparation of steel substrates before application of paints and related products – Test methods for non-metallic blast-cleaning abrasives – Part 5: Determination of moisture (ISO/DIS 11127-5:2019)  
Priprema čeličnih podloga prije nanošenja boja i srodnih proizvoda – Ispitne metode za nemetalne abrazive za čišćenje mlazom – 5. dio: Određivanje vlažnosti (ISO/DIS 11127-5:2019)

prEN 12206-1 en

Paints and varnishes – Coating of aluminium and aluminium alloys for architectural purposes – Part 1: Coatings prepared from thermosetting coating powder

prEN ISO 15528 en

Paints, varnishes and raw materials for paints and varnishes – Sampling (ISO/DIS 15528:2019)  
Boje, lakovi i sirovine za boje i lakove – Uzorkovanje (ISO/DIS 15528:2019)

prEN ISO 16474-3 en

Paints and varnishes – Methods of exposure to laboratory light sources – Part 3: Fluorescent UV lamps (ISO/DIS 16474-3:2019)  
Boje i lakovi – Metode izlaganja izvorima svjetla u laboratoriju – 3. dio: Fluorescentne UV svjetiljke (ISO/DIS 16474-3:2019)

prEN ISO 20566 en

Paints and varnishes – Determination of the scratch resistance of a coating system using a laboratory-scale car-wash (ISO/DIS 20566:2019)  
Boje i lakovi – Određivanje otpornosti sustava premaza na grebanje upotrebom laboratorijske autopraonice (ISO/DIS 20566:2019)

prEN ISO/ASTM 52921 en

Additive manufacturing – General principles – Standard practice for part positioning, coordinates and orientation (ISO/ASTM DIS 52921:2019)  
Aditivna proizvodnja – Opća načela – Standardna praksa za pozicioniranje, koordinate i orijentaciju elemenata (ISO/ASTM DIS 52921:2019)

prEN ISO/ASTM 52950 en

Additive manufacturing – General principles – Overview of data processing (ISO/ASTM/DIS 52950:2019)  
Aditivna proizvodnja – Opća načela – Pregled obrade podataka (ISO/ASTM/DIS 52950:2019)

## HZN/TU I2, *Strojarstvo 2*

prEN ISO 11665-3 en

Measurement of radioactivity in the environment – Air: radon-222 – Part 3: Spot measurement method of the potential alpha energy concentration of its short-lived decay products (ISO/FDIS 11665-3:2019)

prEN ISO 11665-5 en

Measurement of radioactivity in the environment – Air: radon-222 – Part 5: Continuous measurement methods of the activity concentration (ISO/FDIS 11665-5:2019)

prEN ISO 11665-6 en

Measurement of radioactivity in the environment – Air: radon-222 – Part 6: Spot measurement methods of the activity concentration (ISO/FDIS 11665-6:2019)

prEN 14753 en

Safety of machinery – Safety requirements for machinery and equipment for continuous casting of steel  
Sigurnost strojeva – Sigurnosni zahtjevi za strojeve i opremu za kontinuirani čelični ljev

prEN 15093 en

Safety of machinery – Safety requirements for hot flat rolling mills  
Sigurnost strojeva – Sigurnosni zahtjevi za valjaonice za vruće valjanje plosnatih proizvoda

prEN 15094 en

Safety of machinery – Safety requirements for cold flat rolling mills  
Sigurnost strojeva – Sigurnosni zahtjevi za valjaonice za hladno valjanje plosnatih proizvoda

prEN ISO 18557 en

Characterisation principles for soils, buildings and infrastructures contaminated by radionuclides for remediation purposes (ISO 18557:2017)

prEN ISO 19014-2 en

Earth-moving machinery – Functional safety – Part 2: Design and evaluation of hardware and architecture requirements for safety-related parts of the control system (ISO/DIS 19014-2:2019)

prEN ISO 19226 en

Nuclear energy – Determination of neutron fluence and displacement per atom (dpa) in reactor vessel and internals (ISO 19226:2017)

prEN ISO 19361 en

Measurement of radioactivity – Determination of beta emitters activities – Test method using liquid scintillation counting (ISO 19361:2017)

prEN ISO 19581 en

Measurement of radioactivity – Gamma emitting radionuclides – Rapid screening method using scintillation detector gamma-ray spectrometry (ISO 19581:2017)

## HZN/TU N1, *Nemetalni materijali 1*

prEN 993-10 en

Methods of test for dense shaped refractory products – Part 10: Determination of permanent change in dimensions on heating  
Metode ispitivanja neprozirnih vatrostalnih proizvoda – 10. dio: Određivanje trajne promjene dimenzija pri zagrijavanju

## HZN/TU S2, *Zdravlje, okoliš i medicinska oprema 2*

prEN 17436 en

Cabin air quality on civil aircraft – Chemical compounds  
Kvaliteta zraka u kabini putničkog zrakoplova – Kemijski spojevi

## HZN/TU T1, *Prijevoz, rukovanje materijalima i pakiranje 1*

FprEN 2287:2019 en

Aerospace series – Bush, plain, in corrosion resisting steel with self-lubricating liner – Dimensions and loads  
Zrakoplovstvo – Čahure izrađene od običnog čelika otpornog na koroziju sa samopodmazujućom površinom – Dimenzije i opterećenja

FprEN 2516 en

Aerospace series – Passivation of corrosion resisting steels and decontamination of nickel base alloys  
Zrakoplovstvo – Pasivizacija čelika otpornih na koroziju i dekontaminacija legura na bazi nikla



- FprEN 2960:2019 en  
Aerospace series – Heat resisting nickel base alloy (Ni-P101HT) – Cold worked and solution treated – Bar for machining for fasteners –  $3 \text{ mm} \leq D \leq 50 \text{ mm}$
- FprEN 3434:2019 en  
Aerospace series – Nuts, hexagon, slotted/castellated, self-locking, in steel, cadmium plated, MoS2 lubricated – Classification: 900 MPa (at ambient temperature)/235 °C
- FprEN 4264:2019 en  
Aerospace series – Heat resisting alloy FE-PA2501 (X4NiCrMoTi43-13) – As forged – Forging stock –  $a$  or  $D \leq 200 \text{ mm}$
- FprEN 4387:2019 en  
Aerospace series – Non-metallic materials – Rules for drafting and presentation of technical specifications
- FprEN 4426:2019 en  
Aerospace series – Non-metallic materials – Textiles – Test method – Determination of conductivity and pH of aqueous extracts
- FprEN 4570:2019 en  
Aerospace series – Heat resisting alloy FE-PA4901 (X12CrNiCoMoW21-20) – Solution treated – Forgings –  $De \leq 100 \text{ mm}$
- FprEN 4571:2019 en  
Aerospace series – Heat resisting alloy FE-PA4901 (X12CrNiCoMoW21-20) – Solution treated – Bars and sections –  $De \leq 100 \text{ mm}$
- FprEN 4572:2019 en  
Aerospace series – Heat resisting alloy FE-PA4901 (X12CrNiCoMoW21-20) – Solution treated – Sheet and strip –  $a \leq 3 \text{ mm}$
- FprEN 4573:2019 en  
Aerospace series – Heat resisting alloy FE-PA4901 (X12CrNiCoMoW21-20) – Solution treated and precipitation treated – Bars and sections –  $De \leq 100 \text{ mm}$
- FprEN 4574:2019 en  
Aerospace series – Heat resisting alloy FE-PA4901 (X12CrNiCoMoW21-20) – Solution treated and precipitation treated – Forgings –  $De \leq 100 \text{ mm}$
- FprEN 4575:2019 en  
Aerospace series – Heat resisting alloy FE-PA4901 (X12CrNiCoMoW21-20) – Solution treated and descaled – Sheet and plate –  $3 \text{ mm} < a \leq 50 \text{ mm}$
- FprEN 4875 en  
Aerospace series – Surface treatments – Test method for measurement of electrical contact resistance
- FprEN 6111:2019 en  
Aerospace series – Ethylene-propylene elastomer (EPM/EPDM) – Hardness 80 IRHD for static seal elements in hydraulic systems for long-term application – Material standard
- FprEN 6139:2019 en  
Aerospace series – Cap, protective, non-metallic, for EN 6123 fitting ends
- FprEN 6140:2019 en  
Aerospace series – Plug, protective, non metallic for fitting ends  $\leq 3 \text{ 000 PSI}$  hydraulic systems
- FprEN 6141:2019 en  
Aerospace series – Plug, protective, non-metallic, for EN 6123 fitting ends
- FprEN 9130:2019 en  
Aerospace series – Quality systems – Record retention
- FprEN 9300-120:2019 en  
Aerospace series – LOTAR – Long Term Archiving and Retrieval of digital technical product documentation such as 3D CAD and PDM data – Part 120: CAD 3D explicit geometry with graphic product and manufacturing information
- FprEN 9300-121:2019 en  
Aerospace series – LOTAR – Long Term Archiving and Retrieval of digital technical product documentation such as 3D CAD and PDM data – Part 121: Semantic representation of CAD 3D Explicit Geometry with Product and Manufacturing Information
- FprEN 9300-125:2019 en  
Aerospace series – LOTAR - Part 125: Explicit CAD assembly structure with Graphic Product and Manufacturing Information (PMI)
- prEN 16603-20-21 en  
Space engineering – Interface requirements for electrical actuators
- prEN 16603-32-10 en  
Space engineering – Structural factors of safety for spaceflight hardware  
Svemirsko inženjerstvo – Konstrukcijski faktori sigurnosti opreme za svemirske letove
- FprEN 16603-50-12 en  
Space engineering – SpaceWire – Links, nodes, routers and networks
- prEN 16603-60-20 en  
Space engineering – Star sensor terminology and performance specification  
Svemirsko inženjerstvo – Nazivlje i tehničke značajke senzora za zvijezde
- prEN 16842-5 en  
Powered industrial trucks – Visibility – test methods and verification – Part 5: Industrial variable-reach trucks greater than 10 000 kg capacity
- prEN 16842-8 en  
Powered industrial trucks – Visibility-test methods and verification – Part 8: Stand-on counterbalance trucks up to and including 10 000 kg capacity

## **HZN/TU U1, Opća elektrotehnika 1**

- prEN IEC/IEEE 82079-1:2019 en  
Preparation of information for use (instructions for use) of products – Part 1: Principles and general requirements (IEC/IEEE 82079-1:2019)  
Priprema informacija za uporabu (upute za uporabu) proizvoda – 1. dio: Načela i opći zahtjevi (IEC/IEEE 82079-1:2019)

## **HZN/TU V1, Elektronika 1**

- prEN IEC 60352-5:2019 en  
Solderless connections – Part 5: Press-in connections – General requirements, test methods and practical guidance (IEC 60352-5:201X)
- EN 60747-16-5:2013/prA1:2019 en  
Semiconductor devices – Part 16-5: Microwave integrated circuits – Oscillators (IEC 60747-16-5:2013/am1:201X)
- prEN IEC 60904-1:2019 en  
Photovoltaic devices – Part 1: Measurement of photovoltaic current-voltage characteristics (IEC 60904-1:201X)
- prEN IEC 61189-5-601:2019 en  
Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-601: General test methods for materials and assemblies – Reflow soldering ability test for solder joint, and reflow heat resistance test for printed boards (IEC 61189-5-601:201X)
- prEN IEC 61760-1:2019 en  
Surface mounting technology – Part 1: Standard method for the specification of surface mounting components (SMDs) (IEC 61760-1:201X)
- EN 62788-1-4:2016/prA1:2019 en  
Measurement procedures for materials used in photovoltaic modules – Part 1-4: Encapsulants – Measurement of optical transmittance and calculation of the solar-weighted photon transmittance, yellowness index, and UV cut-off wavelength (IEC 62788-1-4:2016/am1:201X)
- prEN IEC 63093-1:2019 en  
Ferrite cores – Guidelines on dimensions and the limits of surface irregularities – Part 1: General specification (IEC 63093-1:201X)
- prEN IEC 63093-9:2019 en  
Ferrite cores – Guidelines on dimensions and the limits of surface irregularities – Part 9: Planar cores (IEC 63093-9:201X)

## HZN/TU W1, Energetska elektrotehnika 1

EN IEC 60704-2-16:2019/prAA en  
Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-16: Particular requirements for washer-dryers  
Kućanski i slični električni aparati – Ispitne odredbe za određivanje uzdušne buke – Dio 2-16: Posebni zahtjevi za perilice-sušilice

EN 60704-2-4:2012/prAA en  
Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-4: Particular requirements for washing machines and spin extractors  
Kućanski i slični električni aparati – Ispitne odredbe za određivanje uzdušne buke – Dio 2-4: Posebni zahtjevi za perilice rublja i centrifuge (ožimalice)

## 1.4 Povučene hrvatske norme

Na prijedlog tehničkog odbora ravnatelj Hrvatskoga zavoda za norme donosi odluku o povlačenju hrvatske norme kada je donesena nova hrvatska norma ili kada je postojeća hrvatska norma postala neprimjenjiva.

Kada je koje područje uređeno propisima i neki od propisa (pravilnik, naredba, naputak) upućuje na norme koje su povučene, one se primjenjuju silom tih propisa i bit će, do izmjene propisa ili izradbe novih, na raspolaganju u Normoteci HZN-a.

## HZN/TO 8, Brodogradnja

HRN EN ISO 6218:2015 en  
Plovni objekti unutarnje plovidbe – Ručno i strojno pogonjene spojne naprave za gurače i spojena plovila – Sigurnosni zahtjevi i glavne dimenzije (ISO 6218:2015; EN ISO 6218:2015)  
Inland navigation vessels – Manually- and power-operated coupling devices for pushing units and coupled vessels – Safety requirements and main dimensions (ISO 6218:2015; EN ISO 6218:2015)  
- zamijenjena s: HRN EN ISO 6218:2019

HRN EN ISO 8384:2018 en  
Brodovi i pomorska tehnologija – Jaružala – Terminološki rječnik (ISO 8384:2018; EN ISO 8384:2018)  
Ships and marine technology – Dredgers – Vocabulary (ISO 8384:2018; EN ISO 8384:2018)  
- zamijenjena s: HRN EN ISO 8384:2019

## HZN/TO 21, Protupožarna i vatrogasna oprema

HRN EN 13565-2:2009/Ispr.2:2011 en  
Stabilni protupožarni sustavi – Sustavi s pjenom – 2. dio: Projektiranje, izvedba i održavanje (EN 13565-2:2009/AC:2010)  
Fixed firefighting systems – Foam systems – Part 2: Design, construction and maintenance (EN 13565-2:2009/AC:2010)  
- bez zamjene

HRN EN 15182-1:2010 en  
Ručne mlaznice za vatrogasnu uporabu – 1. dio: Opći zahtjevi (EN 15182-1:2007+A1:2009)  
Hand-held branchpipes for fire service use – Part 1: Common requirements (EN 15182-1:2007+A1:2009)  
- zamijenjena s: HRN EN 15182-1:2019

HRN EN 15182-2:2010 en  
Ručne mlaznice za vatrogasnu uporabu – 2. dio: Kombinirane ručne mlaznice PN 16 (EN 15182-2:2007+A1:2009)  
Hand-held branchpipes for fire service use – Part 2: Combination branchpipes PN 16 (EN 15182-2:2007+A1:2009)  
- zamijenjena s: HRN EN 15182-2:2019

## HZN/TO 22, Cestovna vozila

HRN EN 13878:2004 en  
Vozila za odmor – Nazivi i definicije (EN 13878:2003)  
Leisure accommodation vehicles – Terms and definitions (EN 13878:2003)  
- zamijenjena s: HRN EN 13878:2019

## HZN/TO 25, Ljevarstvo

HRN EN 1753:2001 en  
Magnezij i magnezijeve legure – Ingoti i odljevci od magnezijevih legura (EN 1753:1997)  
Magnesium and magnesium alloys – Magnesium alloy ingots and castings (EN 1753:1997)  
- zamijenjena s: HRN EN 1753:2019

## HZN/TO 28, Naftni proizvodi i maziva

HRN EN ISO 20846:2011 en  
Naftni proizvodi – Određivanje količine sumpora u gorivima za motorna vozila – Metoda ultraljubičaste fluorescencije (ISO 20846:2011; EN ISO 20846:2011)  
Petroleum products – Determination of sulfur content of automotive fuels – Ultraviolet fluorescence method (ISO 20846:2011; EN ISO 20846:2011)  
- zamijenjena s: HRN EN ISO 20846:2019

HRN EN ISO 20884:2011 en  
Naftni proizvodi – Određivanje sadržaja sumpora u gorivima za motorna vozila – Valno disperzivna rendgenska fluorescencijna spektrometrija (ISO 20884:2011; EN ISO 20884:2011)  
Petroleum products – Determination of sulfur content of automotive fuels – Wavelength-dispersive X-ray fluorescence spectrometry (ISO 20884:2011; EN ISO 20884:2011)  
- zamijenjena s: HRN EN ISO 20884:2019

## HZN/TO 43, Akustika

HRN EN ISO 3743-2:2010 en  
Akustika – Određivanje razina zvučne snage izvora buke uz uporabu zvučnoga tlaka – Inženjerska metoda za male, pokretne izvore u odječnim poljima – 2. dio: Metode za specijalne odječne ispitne prostorije (ISO 3743-2:1994; EN ISO 3743-2:2009)  
Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering methods for small, movable sources in reverberant fields – Part 2: Methods for special reverberation test rooms (ISO 3743-2:1994; EN ISO 3743-2:2009)  
- zamijenjena s: HRN EN ISO 3743-2:2019

## HZN/TO 44, Zavarivanje i srodni postupci

HRN EN ISO 3821:2010 en  
Oprema za plinsko zavarivanje – Gumena crijeva za zavarivanje, rezanje i srodne postupke (ISO 3821:2008; EN ISO 3821:2010)  
Gas welding equipment – Rubber hoses for welding, cutting and allied processes (ISO 3821:2008; EN ISO 3821:2010)  
- zamijenjena s: HRN EN ISO 3821:2019

HRN CEN/TR 14633:2004 en  
Zavarivanje – Radni položaji – Usporedba postojećih međunarodnih, europskih i američkih oznaka (CEN/TR 14633:2003)  
Welding – Working positions – Comparison of current international, European and US designations (CEN/TR 14633:2003)  
- bez zamjene

HRN EN ISO 15609-1:2008 en  
Specifikacija i kvalifikacija postupaka zavarivanja za metalne materijale – Specifikacija postupka zavarivanja – 1. dio: Elektrolučno zavarivanje (ISO 15609-1:2004; EN ISO 15609-1:2004)  
Specification and qualification of welding procedures for metallic materials – Welding procedure specification – Part 1: Arc welding (ISO 15609-1:2004; EN ISO 15609-1:2004)  
- zamijenjena s: HRN EN ISO 15609-1:2019

HRN EN ISO 15609-2:2002 en  
Specifikacija i odobravanje postupaka zavarivanja za metalne materijale – Specifikacija postupka zavarivanja – 2. dio: Plinsko zavarivanje (ISO 15609-2:2001; EN ISO 15609-2:2001)  
Specification and approval of welding procedures for metallic materials – Welding procedure specification – Part 2: Gas welding (ISO 15609-2:2001; EN ISO 15609-2:2001)  
- zamijenjena s: HRN EN ISO 15609-2:2019

HRN EN ISO 15609-2:2002/A1:2008 en  
Specifikacija i odobravanje postupaka zavarivanja za metalne materijale – Specifikacija postupka zavarivanja – 2. dio: Plinsko zavarivanje (EN ISO 15609-2:2001/A1:2003)  
Specification and qualification of welding procedures for metallic materials – Welding procedure specification – Part 2: Gas welding (EN ISO 15609-2:2001/A1:2003)  
- zamijenjena s: HRN EN ISO 15609-2:2019

### **HZN/TO 71, Beton**

HRN EN 12390-4:2000 en  
Ispitivanje očvrstloga betona – 4. dio: Tlačna čvrstoća – Specifikacija uređaja za ispitivanje (EN 12390-4:2000)  
Testing hardened concrete – Part 4: Compressive strength – Specification for testing machines (EN 12390-4:2000)  
- zamijenjena s: HRN EN 12390-4:2019

### **HZN/TO 86, Uređaji za hlađenje, klimatizaciju i dizalice topline**

HRN EN 378-4:2016 en  
Rashladni sustavi i dizalice topline – Zahtjevi s obzirom na sigurnost i okoliš – 4. dio: Rukovanje, održavanje, popravci i sanacija (EN 378-4:2016)  
Refrigerating systems and heat pumps – Safety and environmental requirements – Part 4: Operation, maintenance, repair and recovery (EN 378-4:2016)  
- zamijenjena s: HRN EN 378-4:2019

### **HZN/TO 120, Koža i obuća**

HRN EN ISO 17700:2008 en  
Obuća – Metode ispitivanja gornjišta, podstave i uložnih tabanica – Postojanost obojenja na trljanje (ISO 17700:2004; EN ISO 17700:2005)  
Footwear – Test methods for uppers, linings and insoles – Colour fastness to rubbing (ISO 17700:2004; EN ISO 17700:2005)  
- zamijenjena s: HRN EN ISO 17700:2019

### **HZN/TO 121, Anestetička i respiracijska oprema**

HRN EN 1820:2010 en  
Zračni baloni za anesteziju (ISO 5362:2000, MOD; EN 1820:2005+A1:2009)  
Anaesthetic reservoir bags (ISO 5362:2000, MOD; EN 1820:2005+A1:2009)  
- zamijenjena s: HRN EN ISO 5362:2019

HRN EN 13544-1:2010 en  
Oprema za respiracijsku terapiju – 1. dio: Sustavi za stvaranje aerosola i njihovi dijelovi (EN 13544-1:2007+A1:2009)  
Respiratory therapy equipment – Part 1: Nebulizing systems and their components (EN 13544-1:2007+A1:2009)  
- zamijenjena s: HRN EN ISO 27427:2019

### **HZN/TO 135, Nerazorna ispitivanja**

HRN EN ISO 12718:2008 en,fr  
Nerazorno ispitivanje – Ispitivanje vrtložnim strujama – Terminološki rječnik (ISO 12718:2008; EN ISO 12718:2008)  
Non-destructive testing – Eddy current testing – Vocabulary (ISO 12718:2008; EN ISO 12718:2008)  
- zamijenjena s: HRN EN ISO 12718:2019

HRI CEN ISO/TR 25107:2008 en  
Nerazorno ispitivanje – Smjernice za programe osposobljavanja NDT-osoblja (ISO/TR 25107:2006; CEN ISO/TR 25107:2006)  
Non-destructive testing – Guidelines for NDT training syllabuses (ISO/TR 25107:2006; CEN ISO/TR 25107:2006)  
- zamijenjena s: HRS CEN ISO/TS 25107:2019

### **HZN/TO 147/PO 2, Kvaliteta vode; Fizikalno-kemijske metode ispitivanja**

HRN EN 1899-2:2004 en  
Kakvoća vode – Određivanje biokemijske potrošnje kisika nakon n dana (BPKn) – 2. dio: Metoda za nerazrjeđene uzorke (ISO 5815:1989, preinačena; EN 1899-2:1998)  
Water quality – Determination of biochemical oxygen demand after n days (BODn) – Part 2: Method for undiluted samples (ISO 5815:1989, modified; EN 1899-2:1998)  
- zamijenjena s: HRN EN ISO 5815-1:2019

### **HZN/TO 178, Dizala, pokretne stube i pokretne trake za osobe**

HRN EN 81-58:2006 en  
Sigurnosna pravila za konstrukciju i ugradnju dizala – Pregledavanje i ispitivanje – 58. dio: Vrata voznog okna, ispitivanje vatrootpornosti (EN 81-58:2003)  
Safety rules for the construction and installation of lifts – Examination and tests – Part 58: Landing doors fire resistance test (EN 81-58:2003)  
- zamijenjena s: HRN EN 81-58:2018

### **HZN/TO 181, Sigurnost igračka i proizvodi za djecu**

HRI CEN/TR 13387-1:2015 en  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 1. dio: Promišljanje o sigurnosti i procjena sigurnosti (CEN/TR 13387-1:2015)  
Child use and care articles – General safety guidelines – Part 1: Safety philosophy and safety assessment (CEN/TR 13387-1:2015)  
- zamijenjena s: HRI CEN/TR 13387-1:2019

HRI CEN/TR 13387-2:2015 en  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 2. dio: Kemijske opasnosti (CEN/TR 13387-2:2015)  
Child use and care articles – General safety guidelines – Part 2: Chemical hazards (CEN/TR 13387-2:2015)  
- zamijenjena s: HRI CEN/TR 13387-2:2019

HRI CEN/TR 13387-3:2015 en  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 3. dio: Mehaničke opasnosti (CEN/TR 13387-3:2015)  
Child use and care articles – General safety guidelines – Part 3: Mechanical hazards (CEN/TR 13387-3:2015)  
- zamijenjena s: HRI CEN/TR 13387-3:2019

HRI CEN/TR 13387-5:2015 en  
Proizvodi za dojenčad i malu djecu – Opće smjernice o sigurnosti – 5. dio: Informacije o proizvodu (CEN/TR 13387-5:2015)  
Child use and care articles – General safety guidelines – Part 5: Product information (CEN/TR 13387-5:2015)  
- zamijenjena s: HRI CEN/TR 13387-5:2019

HRI CEN/TR 15371-1:2016 en  
Sigurnost igračka – Tumačenja – 1. dio: Odgovori na zahtjeve za tumačenje EN 71-1, EN 71-2, EN 71-8 i EN 71-14 (CEN/TR 15371-1:2015)  
Safety of toys – Interpretations – Part 1: Replies to requests for interpretation of EN 71-1, EN 71-2, EN 71-8 and EN 71-14 (CEN/TR 15371-1:2015)  
- zamijenjena s: HRI CEN/TR 15371-1:2019

HRI CEN/TR 15371-2:2016 en  
Sigurnost igračka – Tumačenja – 2. dio: Odgovori na zahtjeve za tumačenje kemijskih svojstava prema nizu norma EN 71 (CEN/TR 15371-2:2015)  
Safety of toys – Interpretations – Part 2: Replies to requests for interpretation of the chemical standards in the EN 71-series (CEN/TR 15371-2:2015)  
- zamijenjena s: HRI CEN/TR 15371-2:2019

### **HZN/TO 215, Medicinska informatika**

HRN EN 12381:2008 en  
Medicinska informatika – Vremenske norme za specifične potrebe u zdravstvenoj zaštiti (EN 12381:2005)  
Health Informatics – Time standards for healthcare specific problems (EN 12381:2005)  
- zamijenjena s: HRN EN ISO 12381:2019

### **HZN/TO 221, Geosintetici**

HRN EN ISO 13437:2002 en  
Geotekstili i proizvodi srodni s geotekstilom – Metoda za ugradnju uzoraka u tlo, vađenje uzoraka iz tla i ispitivanje uzoraka u laboratoriju (ISO 13437:1998; EN ISO 13437:1998)  
Geotextiles and geotextile-related products – Method for installing and extracting samples in soil, and testing specimens in laboratory (ISO 13437:1998; EN ISO 13437:1998)  
- zamijenjena s: HRN EN ISO 13437:2019

## HZN/TO 503, Metalni materijali

HRN EN 10025-2:2007 en  
Toplo valjani proizvodi od konstrukcijskih čelika – 2. dio: Tehnički uvjeti isporuke za nelegirane konstrukcijske čelike (EN 10025-2:2004)  
Hot rolled products of structural steels – Part 2: Technical delivery conditions for non-alloy structural steels (EN 10025-2:2004)  
- zamijenjena s: HRN EN 10025-2:2019

HRN EN 10025-3:2007 en  
Toplo valjani proizvodi od konstrukcijskih čelika – 3. dio: Tehnički uvjeti isporuke za normalizacijski žarene/normalizacijski valjane zavarljive sitnozrnate konstrukcijske čelike (EN 10025-3:2004)  
Hot rolled products of structural steels – Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels (EN 10025-3:2004)  
- zamijenjena s: HRN EN 10025-3:2019

HRN EN 10025-4:2007 en  
Toplo valjani proizvodi od konstrukcijskih čelika – 4. dio: Tehnički uvjeti isporuke za termomehanički valjane zavarljive sitnozrnate konstrukcijske čelike (EN 10025-4:2004)  
Hot rolled products of structural steels – Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels (EN 10025-4:2004)  
- zamijenjena s: HRN EN 10025-4:2019

HRN EN 10025-5:2007 en  
Toplo valjani proizvodi od konstrukcijskih čelika – 5. dio: Tehnički uvjeti isporuke za konstrukcijske čelike otporne na atmosfersku koroziju (EN 10025-5:2004)  
Hot rolled products of structural steels with improved atmospheric corrosion resistance – Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance (EN 10025-5:2004)  
- zamijenjena s: HRN EN 10025-5:2019

HRN EN 10025-6:2010 en  
Toplo valjani proizvodi od konstrukcijskih čelika – 6. dio: Tehnički uvjeti isporuke za plosnate proizvode od konstrukcijskih čelika s visokom granicom razvlačenja u poboljšanome stanju (EN 10025-6:2004+A1:2009)  
Hot rolled products of structural steels – Part 6: Technical delivery conditions for flat products of high yield strength structural steels in the quenched and tempered condition (EN 10025-6:2004+A1:2009)  
- zamijenjena s: HRN EN 10025-6:2019

HRN EN 12449:2016 en  
Bakar i legure bakra – Bešavne okrugle cijevi za opću namjenu (EN 12449:2016)  
Copper and copper alloys – Seamless, round tubes for general purposes (EN 12449:2016)  
- zamijenjena s: HRN EN 12449:2019

## HZN/TO 504, Korozija i zaštita metala i legura

HRN EN ISO 28763:2012 en  
Staklasti i porculanski emajli – Obnovljive, emajlirane i pakirane obloge za zračno-plinske i plinsko-plinske izmjenjivače topline – Specifikacije (ISO 28763:2008; EN ISO 28763:2011)  
Vitreous and porcelain enamels – Regenerative, enamelled and packed panels for air-gas and gas-gas heat exchangers – Specifications (ISO 28763:2008; EN ISO 28763:2011)  
- zamijenjena s: HRN EN ISO 28763:2019

## HZN/TO 506, Materijali, oprema i konstrukcije za naftnu industriju, prirodni plin i geotermalnu vodu

HRN EN ISO 10426-3:2006 en  
Industrija nafte i prirodnog plina – Cementi i materijali za cementaciju bušotine – 3. dio: Ispitivanje mješavina bušotinskih cementata za primjenu u dubokom podmorju (ISO 10426-3:2003; EN ISO 10426-3:2004)  
Petroleum and natural gas industries – Cements and materials for well cementing – Part 3: Testing of deepwater well cement formulations (ISO 10426-3:2003; EN ISO 10426-3:2004)  
- zamijenjena s: HRN EN ISO 10426-3:2019

HRN EN ISO 19903:2007 en  
Industrija nafte i prirodnog plina – Stabilne betonske odobalne konstrukcije (ISO 19903:2006; EN ISO 19903:2006)  
Petroleum and natural gas industries – Fixed concrete offshore structures (ISO 19903:2006; EN ISO 19903:2006)  
- zamijenjena s: HRN EN ISO 19903:2019

## HZN/TO 513, Mjerne jedinice i mjerila

HRN EN ISO 80000-2:2013 en  
Veličine i jedinice – 2. dio: Matematički znakovi i simboli za korištenje u prirodnim znanostima i tehnologiji (ISO 80000-2:2009; EN ISO 80000-2:2013)  
Quantities and units – Part 2: Mathematical signs and symbols to be used in the natural sciences and technology (ISO 80000-2:2009; EN ISO 80000-2:2013)  
- zamijenjena s: HRN EN ISO 80000-2:2019

HRN EN ISO 80000-4:2013 en  
Veličine i jedinice – 4. dio: Mehanika (ISO 80000-4:2006; EN ISO 80000-4:2013)  
Quantities and units – Part 4: Mechanics (ISO 80000-4:2006; EN ISO 80000-4:2013)  
- zamijenjena s: HRN EN ISO 80000-4:2019

HRN EN ISO 80000-5:2013 en  
Veličine i jedinice – 5. dio: Termodinamika (ISO 80000-5:2007; EN ISO 80000-5:2013)  
Quantities and units – Part 5: Thermodynamics (ISO 80000-5:2007; EN ISO 80000-5:2013)  
- zamijenjena s: HRN EN ISO 80000-5:2019

HRN EN ISO 80000-9:2013 en  
Veličine i jedinice – 9. dio: Fizikalna kemija i molekularna fizika (ISO 80000-9:2009+Amd 1:2011; EN ISO 80000-9:2013)  
Quantities and units – Part 9: Physical chemistry and molecular physics (ISO 80000-9:2009+Amd 1:2011; EN ISO 80000-9:2013)  
- zamijenjena s: HRN EN ISO 80000-9:2019

HRN EN ISO 80000-10:2013 en  
Veličine i jedinice – 10. dio: Atomska i nuklearna fizika (ISO 80000-10:2009; EN ISO 80000-10:2013)  
Quantities and units – Part 10: Atomic and nuclear physics (ISO 80000-10:2009; EN ISO 80000-10:2013)  
- zamijenjena s: HRN EN ISO 80000-10:2019

HRN EN ISO 80000-12:2013 en  
Veličine i jedinice – 12. dio: Fizika čvrstog stanja (ISO 80000-12:2009; EN ISO 80000-12:2013)  
Quantities and units – Part 12: Solid state physics (ISO 80000-12:2009; EN ISO 80000-12:2013)  
- zamijenjena s: HRN EN ISO 80000-12:2019

## HZN/TO 522, Karakterizacija i zbrinjavanje otpada

HRN EN 13071-3:2011 en  
Stalni spremnici za otpad do 5 000 l koji se podižu i prazne kroz dno – 3. dio: Preporučena spojna oprema za podizanje (EN 13071-3:2011)  
Stationary waste containers up to 5 000 l, top lifted and bottom emptied – Part 3: Recommended lifting connections (EN 13071-3:2011)  
- zamijenjena s: HRN EN 13071-3:2019

## HZN/TO 524, Inteligentni transportni sustavi

HRS CEN ISO/TS 16401-1:2012 en  
Elektronička naplata – Vrednovanje opreme sukladno ISO/TS 17575-2 – 1. dio: Struktura niza testova i svrha testiranja (ISO/TS 16401-1:2012; CEN ISO/TS 16401-1:2012)  
Electronic fee collection – Evaluation of equipment for conformity to ISO/TS 17575-2 – Part 1: Test suite structure and test purposes (ISO/TS 16401-1:2012; CEN ISO/TS 16401-1:2012)  
- zamijenjena s: HRI CEN ISO/TR 16401-1:2019

HRS CEN ISO/TS 16401-2:2012 en  
Elektronička naplata – Vrednovanje opreme sukladno ISO/TS 17575-2 – 2. dio: Načelni niz testova (ISO/TS 16401-2:2012; CEN ISO/TS 16401-2:2012)  
Electronic fee collection – Evaluation of equipment for conformity to ISO/TS 17575-2 – Part 2: Abstract test suite (ISO/TS 16401-2:2012; CEN ISO/TS 16401-2:2012)  
- zamijenjena s: HRI CEN/ISO TR 16401-2:2019

HRS CEN/TS 16794-1:2015 en  
Javni prijevoz – Komunikacija između beskontaktnih čitača i medija za plaćanje vozničkih karata – 1. dio: Zahtjevi s obzirom na provedbu norme ISO/IEC 14443 (CEN/TS 16794-1:2015)  
Public transport – Communication between contactless readers and fare media – Part 1: Implementation requirements for ISO/IEC 14443 (CEN/TS 16794-1:2015)  
- zamijenjena s: HRS CEN/TS 16794-1:2019

HRS CEN/TS 16794-2:2015 en

Javni prijevoz – Komunikacija između beskontaktnih čitača i medija za plaćanje vozničkih karata – 2. dio: Plan ispitivanja za normu ISO/IEC 14443 (CEN/TS 16794-2:2015)  
Public transport – Communication between contactless readers and fare media – Part 2: Test plan for ISO/IEC 14443 (CEN/TS 16794-2:2015)  
- zamijenjena s: HRS CEN/TS 16794-2:2019

### **HZN/TO 528, Oprema za željeznice**

HRN EN 13674-2:2010 en

Željeznički sustav – Željeznički gornji ustroj – Tračnica – 2. dio: Tračnice za skretnice i križišta koje se upotrebljavaju zajedno s Vignoleovim željezničkim tračnicama mase 46 kg/m i više (EN 13674-2:2006+A1:2010)  
Railway applications – Track – Rail – Part 2: Switch and crossing rails used in conjunction with Vignole railway rails 46 kg/m and above (EN 13674-2:2006+A1:2010)  
- zamijenjena s: HRN EN 13674-2:2019

### **HZN/TO 531, Plastika i guma**

HRN EN ISO 527-1:2012 en

Plastika – Određivanje rasteznih svojstava – 1. dio: Opća načela (ISO 527-1:2012; EN ISO 527-1:2012)  
Plastics – Determination of tensile properties – Part 1: General principles (ISO 527-1:2012; EN ISO 527-1:2012)  
- zamijenjena s: HRN EN ISO 527-1:2019

### **HZN/TO 537, Tehnički crteži, dimenzijske i geometrijske specifikacije, opis proizvoda i odgovarajuća dokumentacija**

HRN EN ISO 13385-1:2012 en

Geometrijske specifikacije proizvoda (GSP) – Dimenzijska mjerna oprema – 1. dio: Pomična mjerila – Konstrukcija i mjeriteljska svojstva (ISO 13385-1:2011; EN ISO 13385-1:2011)  
Geometrical product specifications (GPS) – Dimensional measuring equipment – Part 1: Callipers – Design and metrological characteristics (ISO 13385-1:2011; EN ISO 13385-1:2011)  
- zamijenjena s: HRN EN ISO 13385-1:2019

### **HZN/TO 539, Kemijski dezinficijensi i antiseptici**

HRN EN 1656:2010 en

Kemijski dezinficijensi i antiseptici – Kvantitativni suspenzijski test za procjenu baktericidne djelotvornosti kemijskih dezinficijensa i antiseptika koji se upotrebljavaju u veterinarstvu – Metoda ispitivanja i zahtjevi (faza 2, korak 1) (EN 1656:2009)  
Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary area – Test method and requirements (phase 2, step 1) (EN 1656:2009)  
- zamijenjena s: HRN EN 1656:2019

HRN EN 1656:2010/Ispr.1:2011 en

Kemijski dezinficijensi i antiseptici – Kvantitativni suspenzijski test za procjenu baktericidne djelotvornosti kemijskih dezinficijensa i antiseptika koji se upotrebljavaju u veterinarstvu – Metoda ispitivanja i zahtjevi (faza 2, korak 1) (EN 1656:2009/AC:2010)  
Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary area – Test method and requirements (phase 2, step 1) (EN 1656:2009/AC:2010)  
- zamijenjena s: HRN EN 1656:2019

### **HZN/TO 541, Sustavi grijanja, ventilacije i klimatizacije u građevinama**

HRN EN ISO 20361:2015 en

Pumpe i pumpne jedinice za kapljevine – Ispitno pravilo za buku – 2. i 3. razred točnosti (ISO 20361:2015; EN ISO 20361:2015)  
Liquid pumps and pump units – Noise test code – Grades 2 and 3 of accuracy (ISO 20361:2015; EN ISO 20361:2015)  
- zamijenjena s: HRN EN ISO 20361:2019

### **HZN/TO 544, Strojni elementi**

HRN EN ISO 3269:2005 en

Spojni elementi – Prijamno ispitivanje (ISO 3269:2000; EN ISO 3269:2000)  
Fasteners – Acceptance inspection (ISO 3269:2000; EN ISO 3269:2000)  
- zamijenjena s: HRN EN ISO 3269:2019

### **HZN/TO 557, Zaštitna odjeća**

HRN EN 381-2:2003 en

Zaštitna odjeća za korisnike ručnih motornih lančanih pila – 2. dio: Ispitne metode za štitičke noge (EN 381-2:1995)  
Protective clothing for users of hand-held chain saws – Part 2: Test methods for leg protectors (EN 381-2:1995)  
- zamijenjena s: HRN EN ISO 11393-2:2019

HRN EN 381-4:2001 en

Zaštitna odjeća za korisnike ručnih motornih lančanih pila – 4. dio: Ispitne metode za rukavice za zaštitu od motorne lančane pile (EN 381-4:1999)  
Protective clothing for users of hand-held chainsaws – Part 4: Test methods for chainsaw protective gloves (EN 381-4:1999)  
- zamijenjena s: HRN EN ISO 11393-4:2019

HRN EN 381-5:2003 en

Zaštitna odjeća za korisnike ručnih motornih lančanih pila – 5. dio: Zahtjevi za štitičke noge (EN 381-5:1995)  
Protective clothing for users of hand-held chain saws – Part 5: Requirements for leg protectors (EN 381-5:1995)  
- zamijenjena s: HRN EN ISO 11393-2:2019

HRN EN 381-7:2001 en

Zaštitna odjeća za korisnike ručnih motornih lančanih pila – 7. dio: Zahtjevi za rukavice za zaštitu od motorne lančane pile (EN 381-7:1999)  
Protective clothing for users of hand-held chainsaws – Part 7: Requirements for chainsaw protective gloves (EN 381-7:1999)  
- zamijenjena s: HRN EN ISO 11393-4:2019

### **HZN/TO 560, Tekstilni proizvodi**

HRN EN ISO 2307:2010 en

Vlaknasta užad – Određivanje određenih fizikalnih i mehaničkih svojstava (ISO 2307:2010; EN ISO 2307:2010)  
Fibre ropes – Determination of certain physical and mechanical properties (ISO 2307:2010; EN ISO 2307:2010)  
- zamijenjena s: HRN EN ISO 2307:2019

### **HZN/TO 561, Kotlovi, posude pod tlakom, cjevovodi i plinske boce**

HRN EN 215:2008 en

Thermostatic radiator valves – Requirements and test methods (EN 215:2004+A1:2006)  
- zamijenjena s: HRN EN 215:2019

HRN EN ISO 9809-1:2010 en

Plinske boce – Ponovno punjive, bešavne čelične plinske boce – Projektiranje, izrada i ispitivanje – 1. dio: Boce od čelika za poboljšavanje s vlačnom čvrstoćom manjom od 1100 MPa (ISO 9809-1:2010; EN ISO 9809-1:2010)  
Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 1: Quenched and tempered steel cylinders with tensile strength less than 1100 MPa (ISO 9809-1:2010; EN ISO 9809-1:2010)  
- zamijenjena s: HRN EN ISO 9809-1:2019

HRN EN ISO 9809-2:2010 en

Plinske boce – Ponovno punjive, bešavne čelične plinske boce – Projektiranje, izrada i ispitivanje – 2. dio: Boce od čelika za poboljšavanje s vlačnom čvrstoćom većom od 1100 MPa (ISO 9809-2:2010; EN ISO 9809-2:2010)  
Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 2: Quenched and tempered steel cylinders with tensile strength greater than or equal to 1100 MPa (ISO 9809-2:2010; EN ISO 9809-2:2010)  
- zamijenjena s: HRN EN ISO 9809-2:2019

HRN EN ISO 9809-3:2010 en

Plinske boce – Ponovno punjive, bešavne čelične plinske boce – Projektiranje, izrada i ispitivanje – 3. dio: Boce od normaliziranog čelika (ISO 9809-3:2010; EN ISO 9809-3:2010)  
Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 3: Normalized steel cylinders (ISO 9809-3:2010; EN ISO 9809-3:2010)  
- zamijenjena s: HRN EN ISO 9809-3:2019

HRN EN ISO 14245:2010 en

Plinske boce – Specifikacija i ispitivanje ventila boca za ukapljeni naftni plin – Automatsko zatvaranje (ISO 14245:2006; EN ISO 14245:2010)  
Gas cylinders – Specifications and testing of LPG cylinder valves – Self-closing (ISO 14245:2006; EN ISO 14245:2010)  
- zamijenjena s: HRN EN ISO 14245:2019

HRN EN ISO 15995:2010 en  
Plinske boce – Specifikacija i ispitivanje ventila boca za ukapljeni naftni plin – Ručno pokretani ventili (ISO 15995:2006; EN ISO 15995:2010)  
Gas cylinders – Specifications and testing of LPG cylinder valves – Manually operated (ISO 15995:2006; EN ISO 15995:2010)  
- zamijenjena s: HRN EN ISO 15995:2019

HRN EN 16125:2016 en  
Oprema i pribor za UNP – Cjevovodi i nosači – UNP tekuća i parna faza pod tlakom (EN 16125:2015)  
LPG equipment and Accessories – Pipework systems and supports – LPG liquid phase and vapour pressure phase (EN 16125:2015)  
- zamijenjena s: HRN EN 16125:2019

### **HZN/TO 568, Analiza hrane – horizontalne metode, mikrobiologija, posuđe i pribor u kontaktu s hranom**

HRS CEN ISO/TS 15216-2:2013 en  
Mikrobiologija hrane i hrane za životinje – Horizontalna metoda za određivanje virusa hepatitisa A i norovirusa u hrani upotrebom RT-PCR u stvarnom vremenu – 2. dio: Metoda za kvalitativno određivanje (ISO/TS 15216-2:2013, ispravljena verzija 2013-05-01; CEN ISO/TS 15216-2:2013)  
Microbiology of food and animal feed – Horizontal method for determination of hepatitis A virus and norovirus in food using real-time RT-PCR – Part 2: Method for qualitative detection (ISO/TS 15216-2:2013, Corrected Version 2013-05-01; CEN ISO/TS 15216-2:2013)  
- zamijenjena s: HRN EN ISO 15216-2:2019

HRN EN 15633-1:2009 en  
Hrana – Dokazivanje alergena u hrani imunološkim metodama – 1. dio: Opća razmatranja (EN 15633-1:2009)  
Foodstuffs – Detection of food allergens by immunological methods – Part 1: General considerations (EN 15633-1:2009)  
- zamijenjena s: HRN EN 15633-1:2019

HRN EN 15634-1:2009 en  
Hrana – Dokazivanje alergena u hrani molekularno biološkim metodama – 1. dio: Opća razmatranja (EN 15634-1:2009)  
Foodstuffs – Detection of food allergens by molecular biological methods – Part 1: General considerations (EN 15634-1:2009)  
- zamijenjena s: HRN EN 15634-1:2019

HRS CEN/TS 15634-2:2012 en  
Hrana – Detekcija alergena u hrani metodom molekularne biologije – 2. dio: Celer (*Apium graveolens*) – Kvalitativno određivanje specifičnih sekvencija DNK-a u kuhanim kobasicama s pomoću metode RT PCR (CEN/TS 15634-2:2012)  
Foodstuffs – Detection of food allergens by molecular biological methods – Part 2: Celery (*Apium graveolens*) – Qualitative determination of a specific DNA sequence in cooked sausages by real-time PCR (CEN/TS 15634-2:2012)  
- zamijenjena s: HRN EN 15634-2:2019

HRN EN 15842:2010 en  
Namirnice – Detekcija alergena u hrani – Opća razmatranja i validacija metoda (EN 15842:2010)  
Foodstuffs – Detection of food allergens – General considerations and validation of methods (EN 15842:2010)  
- zamijenjena s: HRN EN 15842:2019

### **HZN/TO 571, Sport, igrališta i ostali rekreacijski sadržaji i oprema**

HRN EN 1176-5:2008 en  
Oprema i podloge za igrališta – 5. dio: Dodatni posebni sigurnosni zahtjevi i metode ispitivanja za vrtljke (EN 1176-5:2008)  
Playground equipment and surfacing – Part 5: Additional specific safety requirements and test methods for carousels (EN 1176-5:2008)  
- zamijenjena s: HRN EN 1176-5:2019

### **HZN/TO 577, Metode ispitivanja za karakterizaciju krutih i tekućih sastavnica i opterećenja okoliša**

HRN EN ISO 23611-3:2011 en  
Kvaliteta tla – Uzorkovanje beskralježnjaka u tlu – 3. dio: Uzorkovanje i izdvajanje vrsta iz porodice Enchytraeidae (ISO 23611-3:2007; EN ISO 23611-3:2011)  
Soil quality – Sampling of soil invertebrates – Part 3: Sampling and soil extraction of enchytraeids (ISO 23611-3:2007; EN ISO 23611-3:2011)  
- zamijenjena s: HRN EN ISO 23611-3:2019

### **HZN/TO E65, Mjerenje, vođenje i automatizacija industrijskih procesa**

HRN EN 61069-5:2008 en  
Industrijska procesna mjerna oprema i oprema za vođenje – Ocjena svojstva sustava u svrhu procjene sustava – 5. dio: Procjena zavisnosti sustava (IEC 61069-5:1994; EN 61069-5:1995)  
Industrial-process measurement and control – Evaluation of system properties for the purpose of system assessment – Part 5: Assessment of system dependability (IEC 61069-5:1994; EN 61069-5:1995)  
- zamijenjena s: HRN EN 61069-5:2016

HRN EN 61069-6:2008 en  
Industrijska procesna mjerna oprema i oprema za vođenje – Ocjena svojstva sustava u svrhu procjene sustava – 6. dio: Procjena djelatnosti sustava (IEC 61069-6:1998; EN 61069-6:1998)  
Industrial-process measurement and control – Evaluation of system properties for the purpose of system assessment – Part 6: Assessment of system operability (IEC 61069-6:1998; EN 61069-6:1998)  
- zamijenjena s: HRN EN 61069-6:2016

HRN EN 61069-7:2008 en  
Industrijska procesna mjerna oprema i oprema za vođenje – Ocjena svojstva sustava u svrhu procjene sustava – 7. dio: Procjena sigurnosti sustava (IEC 61069-7:1999; EN 61069-7:1999)  
Industrial-process measurement and control – Evaluation of system properties for the purpose of system assessment – Part 7: Assessment of system safety (IEC 61069-7:1999; EN 61069-7:1999)  
- zamijenjena s: HRN EN 61069-7:2016

HRN EN 61069-8:2008 en  
Industrijska procesna mjerna oprema i oprema za vođenje – Ocjena svojstva sustava u svrhu procjene sustava – 8. dio: Procjena svojstava sustava koji se ne odnose na zadatke (IEC 61069-8:1999; EN 61069-8:1999)  
Industrial-process measurement and control – Evaluation of system properties for the purpose of system assessment – Part 8: Assessment of non-task-related system properties (IEC 61069-8:1999; EN 61069-8:1999)  
- zamijenjena s: HRN EN 61069-8:2016

HRN EN 61515:2008 en  
Mineralnom tvari izolirani kabeli za termoparove i termoparovi (IEC 61515:1995; EN 61515:1996)  
Mineral insulated thermocouple cables and thermocouples (IEC 61515:1995; EN 61515:1996)  
- zamijenjena s: HRN EN 61515:2016

HRN EN 61784-3:2011 en  
Industrijske komunikacijske mreže – Profili – 3. dio: Industrijske sabirnice (fieldbus) za funkcijsku sigurnost – Opća pravila i definicije profila (IEC 61784-3:2010; EN 61784-3:2010)  
Industrial communication networks – Profiles – Part 3: Functional safety fieldbuses – General rules and profile definitions (IEC 61784-3:2010; EN 61784-3:2010)  
- zamijenjena s: HRN EN 61784-3:2016

HRN EN 62424:2011 en  
Predstavljanje (Opisivanje) tehnike vođenja procesa – Zahtjevi u P&I dijagramima i izmjena podataka između P&ID alata i PCE-CAE alata (IEC 62424:2008; EN 62424:2009)  
Representation of process control engineering – Requests in P&I diagrams and data exchange between P&ID tools and PCE-CAE tools (IEC 62424:2008; EN 62424:2009)  
- zamijenjena s: HRN EN 62424:2016

HRN EN 62591:2011 en  
Industrijske komunikacijske mreže – Bežična komunikacijska mreža i komunikacijski profili – WirelessHART™ (IEC 62591:2010; EN 62591:2010)  
Industrial communication networks – Wireless communication network and communication profiles – WirelessHART™ (IEC 62591:2010; EN 62591:2010)  
- zamijenjena s: HRN EN 62591:2016

### **HZN/TO E76, Sigurnost optičkoga zračenja i laserska oprema**

HRN IEC 60825-3:1999 en  
Sigurnost laserskih proizvoda – 3. dio: Upute za laserske predočnike i zabavne svjetlosne efekte (IEC 60825-3:1995)  
Safety of laser products – Part 3: Guidance for laser displays and shows (IEC 60825-3:1995)  
- bez zamjene

HRI IEC/TR 60825-9:2008 en  
Sigurnost laserskih proizvoda – 9. dio: Kompilacija najvećih dozvoljenih izlaganja nekoherentnom optičkom zračenju (IEC/TR 60825-9:1999)  
Safety of laser products – Part 9: Compilation of maximum permissible exposure to incoherent optical radiation (IEC/TR 60825-9:1999)  
- bez zamjene

### **HZN/TO E79, Alarmni sustavi**

HRN EN 50132-7:2013 en  
Alarmni sustavi – Sustavi nadzora primjenom televizije zatvorenoga kruga u primjenama zaštite – 7. dio: Smjernice za primjenu (EN 50132-7:2012)  
Alarm system – CCTV surveillance systems for use in security applications – Part 7: Application guidelines (EN 50132-7:2012)  
- zamijenjena s: HRN EN 62676-4:2015

HRN EN 50133-1/A1:2004 en  
Alarmni sustavi – Sustavi kontrole ulaska u primjenama zaštite – 1. dio: Zahtjevi za sustave (EN 50133-1:1996/A1:2002)  
Alarm systems – Access control systems for use in security applications – Part 1: System requirements (EN 50133-1:1996/A1:2002)  
- zamijenjena s: HRN EN 60839-11-1:2013

HRN EN 50133-1/Corr.:2004 en  
Alarmni sustavi – Sustavi kontrole ulaska u primjenama zaštite – 1. dio: Zahtjevi za sustave (EN 50133-1:1996/Corr:1998)  
Alarm systems – Access control systems for use in security applications – Part 1: System requirements (EN 50133-1:1996/Corr:1998)  
- bez zamjene

HRN EN 50133-1:1998 en  
Alarmni sustavi – Sustavi kontrole ulaska u primjenama zaštite – 1. dio: Zahtjevi za sustave (EN 50133-1:1996)  
Alarm systems – Access control systems for use in security applications – Part 1: System requirements (EN 50133-1:1996)  
- zamijenjena s: HRN EN 60839-11-1:2013

HRN EN 50133-2-1:2000 en  
Alarmni sustavi – Sustavi kontrole ulaska za primjenu u zaštitarstvu – Dio 2-1: Opći zahtjevi za dijelove (EN 50133-2-1:2000)  
Alarm systems – Access control systems for use in security applications – Part 2-1: General requirements for components (EN 50133-2-1:2000)  
- zamijenjena s: HRN EN 60839-11-1:2013

HRN EN 50133-7:2000 en  
Alarmni sustavi – Sustavi kontrole ulaza za primjenu u zaštitarstvu – 7. dio: Upute za primjenu (EN 50133-7:1999)  
Alarm systems – Access control systems for use in security applications – Part 7: Application guidelines (EN 50133-7:1999)  
- zamijenjena s: HRN EN 60839-11-2:2015

### **HZN/TO E80, Pomorska navigacijska i radiokomunikacijska oprema i sustavi**

HRN EN 61162-1:2011 en  
Pomorska navigacijska i radiokomunikacijska oprema i sustavi – Digitalna sučelja – 1. dio: Jedan govornik i više slušatelja (IEC 61162-1:2010; EN 61162-1:2011)  
Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 1: Single talker and multiple listeners (IEC 61162-1:2010; EN 61162-1:2011)  
- zamijenjena s: HRN EN 61162-1:2017

### **HZN/TO E100, Audio, video i multimedijski sustavi te njihova oprema**

HRN EN 62448:2011 en  
Multimedijski sustavi i oprema – Multimedijsko e-izdavaštvo i e-knjige – Opći (generični) oblik za e-izdavaštvo (IEC 62448:2009; EN 62448:2009)  
Multimedia systems and equipment – Multimedia E-publishing and E-books – Generic format for E-publishing (IEC 62448:2009; EN 62448:2009)  
- zamijenjena s: HRN EN 62448:2014

### **HZN/TO E108, Sigurnost elektroničke opreme u području audio, video, informacijske i komunikacijske tehnologije**

HRN EN 41003:2009 en  
Posebni zahtjevi sigurnosti za opremu koja se priključuje na telekomunikacijske mreže i/ili kabelski sustav razdiobe (EN 41003:2008)  
Particular safety requirements for equipment to be connected to telecommunication networks and/or a cable distribution system (EN 41003:2008)  
- zamijenjena s: HRN EN 62949:2017

HRN EN 60990:2005 en  
Metode mjerenja struje dodira i struje zaštitnog vodiča (IEC 60990:1999; EN 60990:1999)  
Methods of measurement of touch-current and protective conductor current (IEC 60990:1999; EN 60990:1999)  
- zamijenjena s: HRN EN 60990:2016

### **HZN/TO E500, Elektromagnetska kompatibilnost u elektrotehnici i telekomunikacijama**

HRN EN 55011:2010 en  
Industrijski, znanstveni i medicinski uređaji – Značajke radiosmetnje – Granice i metode mjerenja (CISPR 11:2009, MOD; EN 55011:2009)  
Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement (CISPR 11:2009, MOD; EN 55011:2009)  
- zamijenjena s: HRN EN 55011:2016

HRN EN 55011:2010/A1:2011 en  
Industrijski, znanstveni i medicinski (ISM) radiofrekvencijski uređaji – Značajke radiosmetnja – Granice i mjerne metode (CISPR 11:2009/am1:2010; EN 55011:2009/A1:2010)  
Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement (CISPR 11:2009/am1:2010; EN 55011:2009/A1:2010)  
- zamijenjena s: HRN EN 55011:2016

HRN EN 55014-2:1997 en  
Elektromagnetska kompatibilnost – Zahtjevi otpornosti prema smetnjama za kućanske aparate, alate i slične uređaje – 2. dio: Otpornost – Norma porodice proizvoda (CISPR 14-2:1997; EN 55014-2:1997)  
Electromagnetic compatibility – Immunity requirements for household appliances, tools and similar apparatus – Part 2: Immunity – Product family standard (CISPR 14-2:1997; EN 55014-2:1997)  
- zamijenjena s: HRN EN 55014-2:2015

HRN EN 55014-2:1997/A1:2003 en  
Elektromagnetska kompatibilnost – Zahtjevi za kućanske aparate, električne alate i slične uređaje – 2. dio: Otpornost – Norma porodice proizvoda (CISPR 14-2:1997/am1:2001; EN 55014-2:1997/A1:2001)  
Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity – Product family standard (CISPR 14-2:1997/am1:2001; EN 55014-2:1997/A1:2001)  
- zamijenjena s: HRN EN 55014-2:2015

HRN EN 55014-2:1997/A2:2009 en  
Elektromagnetska kompatibilnost – Zahtjevi za kućanske aparate, električne alate i slične uređaje – 2. dio: Otpornost – Norma porodice proizvoda (CISPR 14-2:1997/am2:2008; EN 55014-2:1997/A2:2008)  
Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity – Product family standard (CISPR 14-2:1997/am2:2008; EN 55014-2:1997/A2:2008)  
- zamijenjena s: HRN EN 55014-2:2015

HRN EN 55014-2:1997/Ispr.1:2013 en  
Elektromagnetska kompatibilnost – Zahtjevi otpornosti prema smetnjama za kućanske aparate, alate i slične uređaje – 2. dio: Otpornost – Norma porodice proizvoda (EN 55014-2:1997/AC:1997)  
Electromagnetic compatibility – Immunity requirements for household appliances, tools and similar apparatus – Part 2: Immunity – Product family standard (EN 55014-2:1997/AC:1997)  
- zamijenjena s: HRN EN 55014-2:2015

- HRN EN 55016-1-2:2005 en  
 Specifikacija uređaja i metoda za mjerenje radiosmetnja i otpornosti – Dio 1-2: Uređaji za mjerenje radiosmetnja i otpornosti – Pomoćna oprema – Vođene smetnje (CISPR 16-1-2:2003; EN 55016-1-2:2004)  
 Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Conducted disturbances (CISPR 16-1-2:2003; EN 55016-1-2:2004)  
 - zamijenjena s: HRN EN 55016-1-2:2014
- HRN EN 55016-1-2:2005/A1:2005 en  
 Specifikacija uređaja i metoda mjerenja radiosmetnja i otpornosti – Dio 1-2: Uređaji za mjerenje radiosmetnja i otpornosti – Pomoćna oprema – Vođene smetnje (CISPR 16-1-2:2003/am1:2004; EN 55016-1-2:2004/A1:2005)  
 Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Conducted disturbances (CISPR 16-1-2:2003/am1:2004; EN 55016-1-2:2004/A1:2005)  
 - zamijenjena s: HRN EN 55016-1-2:2014
- HRN EN 55016-1-2:2005/A2:2008 en  
 Specifikacija uređaja i metoda za mjerenja radiosmetnja i otpornosti – Dio 1-2: Uređaji za mjerenje radiosmetnja i otpornosti – Pomoćna oprema – Vođene smetnje (CISPR 16-1-2:2003/am2:2006; EN 55016-1-2:2004/A2:2006)  
 Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Conducted disturbances (CISPR 16-1-2:2003/am2:2006; EN 55016-1-2:2004/A2:2006)  
 - zamijenjena s: HRN EN 55016-1-2:2014
- HRN EN 55022:2011 en  
 Uređaji informacijske tehnologije – Značajke radiosmetnja – Granice i metode mjerenja (CISPR 22:2008, MOD; EN 55022:2010)  
 Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement (CISPR 22:2008, MOD; EN 55022:2010)  
 - zamijenjena s: HRN EN 50561-1:2013, HRN EN 55032:2013
- HRN EN 55022:2011/Ispr.1:2012 en  
 Uređaji informacijske tehnologije – Značajke radiosmetnja – Granice i metode mjerenja (EN 55022:2010/AC:2011)  
 Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement (EN 55022:2010/AC:2011)  
 - zamijenjena s: HRN EN 50561-1:2013, HRN EN 55032:2013
- HRN EN 61000-3-2:2008 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 3-2: Granice – Granice za harmoničke strujne emisije (za ulazne struje uređaja ≤ 16 A po fazi) (IEC 61000-3-2:2005; EN 61000-3-2:2006)  
 Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase) (IEC 61000-3-2:2005; EN 61000-3-2:2006)  
 - zamijenjena s: HRN EN 61000-3-2:2014
- HRN EN 61000-3-2:2008/A1:2010 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 3-2: Granice – Granice za harmoničke strujne emisije (za ulazne struje uređaja manje ili jednake od 16 A po fazi) (IEC 61000-3-2:2005/am1:2008; EN 61000-3-2:2006/A1:2009)  
 Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase) (IEC 61000-3-2:2005/am1:2008; EN 61000-3-2:2006/A1:2009)  
 - zamijenjena s: HRN EN 61000-3-2:2014
- HRN EN 61000-3-2:2008/A2:2010 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 3-2: Granice – Granice za harmoničke strujne emisije (za ulazne struje uređaja manje ili jednake 16 A po fazi) (IEC 61000-3-2:2005/am2:2009; EN 61000-3-2:2006/A2:2009)  
 Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase) (IEC 61000-3-2:2005/am2:2009; EN 61000-3-2:2006/A2:2009)  
 - zamijenjena s: HRN EN 61000-3-2:2014
- HRN EN 61000-4-16:2001 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-14: Ispitne i mjerne tehnike – Ispitivanje otpornosti na vodljive asimetrične smetnje u frekvencijskome opsegu od 0 Hz do 150 kHz (IEC 61000-4-16:1998; EN 61000-4-16:1998)  
 Electromagnetic compatibility (EMC) – Part 4-16: Testing and measurement techniques – Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz (IEC 61000-4-16:1998; EN 61000-4-16:1998)  
 - zamijenjena s: HRN EN 61000-4-16:2016
- HRN EN 61000-4-16:2001/A1:2008 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-16: Ispitne i mjerne tehnike – Ispitivanje otpornosti na vođene smetnje u zajedničkom modu u frekvencijskom području od 0 Hz do 150 kHz (IEC 61000-4-16:1998/am1:2001; EN 61000-4-16:1998/A1:2004)  
 Electromagnetic compatibility (EMC) – Part 4-16: Testing and measurement techniques – Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz (IEC 61000-4-16:1998/am1:2001; EN 61000-4-16:1998/A1:2004)  
 - zamijenjena s: HRN EN 61000-4-16:2016
- HRN EN 61000-4-16:2001/A2:2011 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-16: Ispitne i mjerne tehnike – Ispitivanje otpornosti na vodljive asimetrične smetnje u frekvencijskome opsegu od 0 Hz do 150 kHz (IEC 61000-4-16:1998/am2:2009; EN 61000-4-16:1998/A2:2011)  
 Electromagnetic compatibility (EMC) – Part 4-16: Testing and measurement techniques – Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz (IEC 61000-4-16:1998/am2:2009; EN 61000-4-16:1998/A2:2011)  
 - zamijenjena s: HRN EN 61000-4-16:2016
- HRN EN 61000-4-23:2009 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-23: Tehnike mjerenja i ispitivanja – Metode ispitivanja za zaštitne uređaje za HEMP i druge zračne smetnje (IEC 61000-4-23:2000; EN 61000-4-23:2000)  
 Electromagnetic compatibility (EMC) – Part 4-23: Testing and measurement techniques – Test methods for protective devices for HEMP and other radiated disturbances (IEC 61000-4-23:2000; EN 61000-4-23:2000)  
 - bez zamjene
- HRN EN 61000-4-30:2009 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-30: Ispitne i mjerne tehnike – Metode mjerenja kvalitete električne energije (IEC 61000-4-30:2008; EN 61000-4-30:2009)  
 Electromagnetic compatibility (EMC) – Part 4-30: Testing and measurement techniques – Power quality measurement methods (IEC 61000-4-30:2008; EN 61000-4-30:2009)  
 - zamijenjena s: HRN EN 61000-4-30:2015
- HRN EN 61000-4-5:2008 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-5: Ispitne i mjerne tehnike – Ispitivanje otpornosti na udarne prenapone (IEC 61000-4-5:2005; EN 61000-4-5:2006)  
 Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test (IEC 61000-4-5:2005; EN 61000-4-5:2006)  
 - zamijenjena s: HRN EN 61000-4-5:2014
- HRN EN 61000-4-6:2009 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-6: Ispitne i mjerne tehnike – Ispitivanje otpornosti na vođene smetnje nastale djelovanjem radiofrekvencijskih polja (IEC 61000-4-6:2008; EN 61000-4-6:2009)  
 Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-4-6:2008; EN 61000-4-6:2009)  
 - zamijenjena s: HRN EN 61000-4-6:2014
- HRN EN 61000-4-9/A1:2001 en  
 Elektromagnetska kompatibilnost (EMC) – Dio 4-9: Ispitna i mjerne tehnike – Ispitivanje otpornosti na impulsno magnetsko polje – Osnovna EMC norma (IEC 1000-4-9:1993/A1:2000; EN 61000-4-9:1993/A1:2001)  
 Electromagnetic compatibility (EMC) – Part 4-9: Testing and measurement techniques – Pulse magnetic field immunity test – Basic EMC Publication (IEC 1000-4-9:1993/A1:2000; EN 61000-4-9:1993/A1:2001)  
 - zamijenjena s: HRN EN 61000-4-9:2016



HRN EN 61000-4-9:1997 en  
Elektromagnetska kompatibilnost – 4. dio: Ispitna i mjerna tehnika – 9. odjeljak: Ispitivanje otpornosti na impulsno magnetsko polje – Osnovna EMC norma (IEC 61000-4-9:1993; EN 61000-4-9:1993)  
Electromagnetic compatibility – Part 4: Testing and measurement techniques – Section 9: Pulse magnetic field immunity test – Basic EMC Publication (IEC 61000-4-9:1993; EN 61000-4-9:1993)  
- zamijenjena s: HRN EN 61000-4-9:2016

### **HZN/TU A1, Usluge, proizvodi za kućanstvo i slobodno vrijeme 1**

HRN EN 131-1:2015 en  
Ljestve – 1. dio: Nazivi, tipovi, funkcionalne veličine (EN 131-1:2015)  
Ladders – Part 1: Terms, types, functional sizes (EN 131-1:2015)  
- zamijenjena s: HRN EN 131-1:2019

HRN EN 15017:2008 en  
Pogrebne usluge – Zahtjevi (EN 15017:2005)  
Funeral Services – Requirements (EN 15017:2005)  
- zamijenjena s: HRN EN 15017:2019

### **HZN/TU C1, Kemikalije, kemijsko inženjerstvo, poljoprivredni i prehrambeni proizvodi 1**

HRN EN ISO 787-13:2004 en  
Opće metode ispitivanja pigmentata i punila – 13. dio: Određivanje u vodi topljivih sulfata, klorida i nitrata (ISO 787-13:2002; EN ISO 787-13:2002)  
General methods of test for pigments and extenders – Part 13: Determination of water-soluble sulfates, chlorides and nitrates (ISO 787-13:2002; EN ISO 787-13:2002)  
- zamijenjena s: HRN EN ISO 787-13:2019

HRN EN ISO 787-15:1999 en  
Opće metode ispitivanja pigmentata i punila – 15. dio: Određivanje svjetlostabilnosti sličnih tipova obojenih pigmentata (ISO 787-15:1986; EN ISO 787-15:1995)  
General methods of test for pigments and extenders – Part 15: Comparison of resistance to light of coloured pigments of similar types (ISO 787-15:1986; EN ISO 787-15:1995)  
- zamijenjena s: HRN EN ISO 787-15:2019

HRN EN 927-3:2013 en  
Boje i lakovi – Materijali i sustavi za premazivanje za vanjsko drvo – 3. dio: Ispitivanje prirodnim starenjem (EN 927-3:2012)  
Paints and varnishes – Coating materials and coating systems for exterior wood – Part 3: Natural weathering test (EN 927-3:2012)  
- zamijenjena s: HRN EN 927-3:2019

HRN EN 1841:2004 en  
Adhezivi – Ispitne metode za adhezive za podne i zidne obloge – Određivanje dimenzionalnih promjena podnih obloga od linoleuma u kontaktu s adhezivom (EN 1841:1998)  
Adhesives – Test methods for adhesives for floor coverings and wall coverings – Determination of dimensional changes of a linoleum floor covering in contact with an adhesive (EN 1841:1998)  
- zamijenjena s: HRN EN ISO 22633:2019

HRN EN ISO 2808:2008 en  
Boje i lakovi – Određivanje debljine filma (ISO 2808:2007; EN ISO 2808:2007)  
Paints and varnishes – Determination of film thickness (ISO 2808:2007; EN ISO 2808:2007)  
- zamijenjena s: HRN EN ISO 2808:2019

HRN EN ISO 3233-2:2014 en  
Boje i lakovi – Određivanje volumnog postotka nehlapljivih tvari – 2. dio: Metoda određivanja sadržaja nehlapljivih tvari u skladu s normom ISO 3251 i određivanje gustoće suhog filma na presvučenim ispitnim pločama po Arhimedovom načelu (ISO 3233-2:2014; EN ISO 3233-2:2014)  
Paints and varnishes – Determination of the percentage volume of non-volatile matter – Part 2: Method using the determination of non-volatile-matter content in accordance with ISO 3251 and determination of dry film density on coated test panels by the Archimedes principle (ISO 3233-2:2014; EN ISO 3233-2:2014)  
- zamijenjena s: HRN EN ISO 3233-2:2019

HRN EN 13523-11:2012 en  
Metali zaštićeni trakom – Metode ispitivanja – 11. dio: Otpornost na otapala (ispitivanje trljanjem) (EN 13523-11:2011)  
Coil coated metals – Test methods – Part 11: Resistance to solvents (rubbing test) (EN 13523-11:2011)  
- zamijenjena s: HRN EN 13523-11:2019

HRN EN 13523-17:2012 en  
Metali zaštićeni trakom – Metode ispitivanja – 17. dio: Prionljivost gulivih filmova (EN 13523-17:2011)  
Coil coated metals – Test methods – Part 17: Adhesion of strippable films (EN 13523-17:2011)  
- zamijenjena s: HRN EN 13523-17:2019

HRN EN 13523-19:2012 en  
Metali zaštićeni trakom – Metode ispitivanja – 19. dio: Izrada ploča i metoda ispitivanja izlaganjem atmosferskim uvjetima (EN 13523-19:2011)  
Coil coated metals – Test methods – Part 19: Panel design and method of atmospheric exposure testing (EN 13523-19:2011)  
- zamijenjena s: HRN EN 13523-19:2019

HRN EN 14257:2008 en  
Adhezivi – Adhezivi za drvo – Određivanje zatezne čvrstoće preklonih spojeva na povišenoj temperaturi (WATT '91) (EN 14257:2006)  
Adhesives – Wood adhesives – Determination of tensile strength of lap joints at elevated temperature (WATT '91) (EN 14257:2006)  
- zamijenjena s: HRN EN 14257:2019

HRN EN 16074:2012 en  
Boje i lakovi – Određivanje udjela nehlapljivih tvari i brzine prskanja materijala zaštićenih trakom (EN 16074:2011)  
Paints and varnishes – Determination of non-volatile-matter content and spreading rate of coil coating materials (EN 16074:2011)  
- zamijenjena s: HRN EN 16074:2019

HRN EN ISO 17059:2010 en  
Uljarice – Ekstrakcija ulja i priprava metil estera triglicerida masnih kiselina za analizu plinskom kromatografijom (Brza metoda) (ISO 17059:2007; EN ISO 17059:2009)  
Oilseeds – Extraction of oil and preparation of methyl esters of triglyceride fatty acids for analysis by gas chromatography (Rapid method) (ISO 17059:2007; EN ISO 17059:2009)  
- zamijenjena s: HRN EN ISO 17059:2019

HRN EN ISO 17872:2008 en  
Boje i lakovi – Smjernice za urezivanje oznaka kroz prevlake na metalnim pločicama pri ispitivanju na koroziju (ISO 17872:2007; EN ISO 17872:2007)  
Paints and varnishes – Guidelines for the introduction of scribe marks through coatings on metallic panels for corrosion testing (ISO 17872:2007; EN ISO 17872:2007)  
- zamijenjena s: HRN EN ISO 17872:2019

### **HZN/TU I2, Strojarstvo 2**

HRN EN 474-1:2018 en  
Strojevi za zemljane radove – Sigurnost – 1. dio: Opći zahtjevi (EN 474-1:2006+A5:2018)  
Earth-moving machinery – Safety – Part 1: General requirements (EN 474-1:2006+A5:2018)  
- zamijenjena s: HRN EN 474-1:2019

HRN EN ISO 11665-1:2015 en  
Measurement of radioactivity in the environment – Air: radon-222 – Part 1: Origins of radon and its short-lived decay products and associated measurement methods (ISO 11665-1:2012; EN ISO 11665-1:2015)  
- zamijenjena s: HRN EN ISO 11665-1:2019

### **HZN/TU M1, Metalni materijali 1**

HRN EN ISO 3252:2008 en  
Metalurgija praha – Terminološki rječnik (ISO 3252:1999; EN ISO 3252:2000)  
Powder metallurgy – Vocabulary (ISO 3252:1999; EN ISO 3252:2000)  
- zamijenjena s: HRN EN ISO 3252:2019

## HZN/TU N1, Nemetalni materijali 1

HRN EN ISO 20504:2016 en  
Fine ceramics (advanced ceramics, advanced technical ceramics) – Test method for compressive behaviour of continuous fibre-reinforced composites at room temperature (ISO 20504:2006; EN ISO 20504:2016)  
- zamijenjena s: HRN EN ISO 20504:2019

## HZN/TU S1, Zdravlje, okoliš i medicinska oprema 1

HRN EN ISO 3630-1:2008 en  
Stomatologija – Endodontski instrumenti – 1. dio: Opći zahtjevi i metode ispitivanja (ISO 3630-1:2008; EN ISO 3630-1:2008)  
Dentistry – Root-canal instruments – Part 1: General requirements and test methods (ISO 3630-1:2008; EN ISO 3630-1:2008)  
- zamijenjena s: HRN EN ISO 3630-1:2019

## HZN/TU T1, Prijevoz, rukovanje materijalima i pakiranje 1

HRN EN 3685:2008 en  
Nizovi o zrakoplovstvu – Matice od čelika otpornog na toplinu FE-PA2601 (A286) – Klasifikacija: 1100 MPa/650 °C – Tehnička specifikacija (EN 3685:2008)  
Aerospace series – Bolts in heat resisting steel FE-PA2601 (A286) – Classification: 1100 MPa/650 °C – Technical specification (EN 3685:2008)  
- zamijenjena s: HRN EN 3685:2019

HRN EN 3745-404:2008 en  
Nizovi o zrakoplovstvu – Vlakna i kabeli, optički, za zrakoplove – Metode ispitivanja – 404. dio: Toplinski šok (EN 3745-404:2005)  
Aerospace series – Fibres and cables, optical, aircraft use – Test methods – Part 404: Thermal shock (EN 3745-404:2005)  
- zamijenjena s: HRN EN 3745-404:2019

HRN EN 4476:2011 en  
Nizovi o zrakoplovstvu – Boje i lakovi – Pomoćni premaz za hladnu konzervaciju (EN 4476:2011)  
Aerospace series – Paints and varnishes – Cold curing intermediate coat (EN 4476:2011)  
- zamijenjena s: HRN EN 4476:2019

HRN EN 4604-003:2011 en  
Nizovi o zrakoplovstvu – Kabel, električni, za prijenos signala – 003. dio: Kabel, koaksijalni, 50 ohm, 200 °C, tip WZ – Norma za proizvod (EN 4604-003:2009)  
Aerospace series – Cable, electrical, for signal transmission – Part 003: Cable, coaxial, 50 ohm, 200 °C, type WZ – Product standard (EN 4604-003:2009)  
- zamijenjena s: HRN EN 4604-003:2019

HRN EN 4604-006:2011 en  
Nizovi o zrakoplovstvu – Kabel, električni, za prijenos signala – 006. dio: Kabel, koaksijalni, 50 ohm, 200 °C, tip WM – Norma za proizvod (EN 4604-006:2009)  
Aerospace series – Cable, electrical, for signal transmission – Part 006: Cable, coaxial, 50 ohm, 200 °C, type WM – Product standard (EN 4604-006:2009)  
- bez zamjene

HRN EN 4827:2017 en  
Zrakoplovstvo – Anodizacija aluminija i aluminijevih legura bez šesterovalentnog kroma (EN 4827:2017)  
Aerospace series – Hexavalent chromium free anodizing of aluminium and aluminium alloys (EN 4827:2017)  
- zamijenjena s: HRN EN 4827:2019

## HZN/TU V1, Elektronika 1

HRN HD 123.1 S1:2008 en  
Hollow metallic waveguides – Part 1: General requirements and measuring methods (IEC 60153-1:1964; HD 123.1 S1:1977)  
- zamijenjena s: HRN EN 60153-1:2016

HRN HD 123.2 S1:2008 en  
Hollow metallic waveguides – Part 2: Relevant specifications for ordinary rectangular waveguides (IEC 60153-2:1974; HD 123.2 S1:1977)  
- zamijenjena s: HRN EN 60153-2:2016

HRN EN 50289-1-11:2008 en  
Communication cables – Specifications for test methods – Part 1-11: Electrical test methods – Characteristic impedance, input impedance, return loss (EN 50289-1-11:2001)  
- zamijenjena s: HRN EN 50289-1-11:2017

HRN EN 50289-4-16:2014 en  
Communication cables – Specifications for test methods – Part 4-16: Environmental test methods – Circuit integrity under fire conditions (EN 50289-4-16:2012)  
- zamijenjena s: HRN EN 50289-4-16:2016

HRN EN 50290-2-20:2008 en  
Komunikacijski kabeli – Dio 2-20: Opća pravila konstruiranja i izrada – Općenito (EN 50290-2-20:2001)  
Communication cables – Part 2-20: Common design rules and construction – General (EN 50290-2-20:2001)  
- zamijenjena s: HRN EN 50290-2-20:2016

HRN EN 50290-2-29:2008 en  
Komunikacijski kabeli – Dio 2-29: Opća pravila konstruiranja i izrada – Križno povezane PE izolacijske smjese (EN 50290-2-29:2002)  
Communication cables – Part 2-29: Common design rules and construction – Cross-linked PE insulation compounds (EN 50290-2-29:2002)  
- zamijenjena s: HRN EN 50290-2-29:2016

HRN EN 50377-14-1:2012 en  
Connector sets and interconnect components to be used in optical fibre communication systems – Product specifications – Part 14-1: Cords with IEC 60793-2-50 singlemode category B1.1 and B1.3 fibre for category C (EN 50377-14-1:2011)  
- zamijenjena s: HRN EN 50377-14-1:2018

HRN EN 60062:2008 en  
Marking codes for resistors and capacitors (IEC 60062:2004; EN 60062:2005)  
- zamijenjena s: HRN EN 60062:2016

HRN EN 60062:2008/Ispr.1:2014 en  
Marking codes for resistors and capacitors (EN 60062:2005/AC:2007)  
- zamijenjena s: HRN EN 60062:2016

HRN EN 60068-2-44:2008 en  
Environmental testing – Part 2: Tests – Guidance on test T: Soldering (IEC 60068-2-44:1995; EN 60068-2-44:1995)  
- zamijenjena s: HRN EN 60068-3-13:2016

HRN EN 60154-1:2008 en  
Flanges for waveguides – Part 1: General requirements (IEC 60154-1:1982+am1:1993; EN 60154-1:1994+A1:1994)  
- zamijenjena s: HRN EN 60154-1:2016

HRN EN 60384-1:2010 en  
Fixed capacitors for use in electronic equipment – Part 1: Generic specification (IEC 60384-1:2008+Corr.1:2008; EN 60384-1:2009)  
- zamijenjena s: HRN EN 60384-1:2016

HRN EN 60384-3:2008 en  
Fixed capacitors for use in electronic equipment – Part 3: Sectional specification – Surface mount fixed tantalum electrolytic capacitors with manganese dioxide solid electrolyte (IEC 60384-3:2006; EN 60384-3:2006)  
- zamijenjena s: HRN EN 60384-3:2016

HRN EN 60384-3:2008/Ispr.1:2009 en  
Fixed capacitors for use in electronic equipment – Part 3: Sectional specification – Surface mount fixed tantalum electrolytic capacitors with manganese dioxide solid electrolyte (EN 60384-3:2006/AC:2009)  
- zamijenjena s: HRN EN 60384-3:2016

HRN EN 60384-4:2008 en  
Fixed capacitors for use in electronic equipment – Part 4: Sectional specification – Aluminium electrolytic capacitors with solid (MnO<sub>2</sub>) and non-solid electrolyte (IEC 60384-4:2007; EN 60384-4:2007)  
- zamijenjena s: HRN EN 60384-4:2016

HRN EN 60384-18:2008 en  
Fixed capacitors for use in electronic equipment – Part 18: Sectional specification – Fixed aluminium electrolytic surface mount capacitors with solid (MnO<sub>2</sub>) and non-solid electrolyte (IEC 60384-18:2007; EN 60384-18:2007)  
- zamijenjena s: HRN EN 60384-18:2016

HRN EN 60539-1:2009 en  
Directly heated negative temperature coefficient thermistors – Part 1: Generic specification (IEC 60539-1:2008; EN 60539-1:2008)  
- zamijenjena s: HRN EN 60539-1:2016

- HRN EN 60758:2009 en  
Synthetic quartz crystal – Specifications and guidelines for use (IEC 60758:2008; EN 60758:2009)  
- zamijenjena s: HRN EN 60758:2016
- HRN EN 60793-2:2012 en  
Optical fibres – Part 2: Product specifications – General (IEC 60793-2:2011; EN 60793-2:2012)  
- zamijenjena s: HRN EN 60793-2:2016
- HRN EN 60904-3:2009 en  
Photovoltaic devices – Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data (IEC 60904-3:2008; EN 60904-3:2008)  
- zamijenjena s: HRN EN 60904-3:2016
- HRN EN 60966-2-4:2010 en  
Radio frequency and coaxial cable assemblies – Part 2-4: Detail specification for cable assemblies for radio and TV receivers – Frequency range 0 MHz to 3000 MHz, IEC 61169-2 connectors (IEC 60966-2-4:2009; EN 60966-2-4:2009)  
- zamijenjena s: HRN EN 60966-2-4:2016
- HRN EN 61076-3-110:2014 en  
Connectors for electronic equipment – Product requirements – Part 3-110: Detail specification for shielded, free and fixed connectors for data transmission with frequencies up to 1 000 MHz (IEC 61076-3-110:2012; EN 61076-3-110:2012)  
- zamijenjena s: HRN EN 61076-3-110:2016
- HRN EN 61300-2-47:2011 en  
Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-47: Tests – Thermal shocks (IEC 61300-2-47:2010; EN 61300-2-47:2010)  
- zamijenjena s: HRN EN 61300-2-47:2016
- HRN EN 61340-2-3:2008 en  
Electrostatics – Part 2-3: Methods of test for determining the resistance and resistivity of solid planar materials used to avoid electrostatic charge accumulation (IEC 61340-2-3:2000; EN 61340-2-3:2000)  
- zamijenjena s: HRN EN 61340-2-3:2016
- HRN EN 61753-1:2008 en  
Fibre optic interconnecting devices and passive components performance standard – Part 1: General and guidance for performance standards (IEC 61753-1:2007; EN 61753-1:2007)  
- zamijenjena s: HRN EN IEC 61753-1:2018
- HRN EN 62129:2008 en  
Calibration of optical spectrum analyzers (IEC 62129:2006; EN 62129:2006)  
- zamijenjena s: HRN EN 62129-1:2016
- HRN EN 62129:2008/Ispr.1:2014 en  
Calibration of optical spectrum analyzers (EN 62129:2006/AC:2006)  
- zamijenjena s: HRN EN 62129-1:2016
- HRN EN 62343-3-1:2011 en  
Dynamic modules – Part 3-1: Performance specification templates – Dynamic channel equalizers (IEC 62343-3-1:2010; EN 62343-3-1:2010)  
- zamijenjena s: HRN EN 62343-3-1:2016

## 1.6 Ispravci hrvatskih norma

U popisima hrvatskih norma objavljenim u ranijim brojevima službenog glasila potkrale su se pogreške. Niže navodimo ispravne oznake i naslove hrvatskih norma. Navedeni ispravci smatraju se službenom informacijom i nisu nužno uključeni u norme koje su prethodno objavljene.

### HZN/ TO 23, *Traktori i strojevi za poljoprivredu i šumarstvo*

- **umjesto**

HRN EN ISO 4254-7:2018

Poljoprivredna mehanizacija – Sigurnost – 7. dio: Kombajni, kombajni za krmne usjeve, kombajni za pamuk i kombajni za šećernu trsku (ISO 4254-7:2017; EN ISO 4254-7:2017)  
Agricultural machinery – Safety – Part 7: Combine harvesters, forage harvesters, cotton harvesters and sugar cane harvesters (ISO 4254-7:2017; EN ISO 4254-7:2017)

- **treba biti**

HRN EN ISO 4254-7:2018

Poljoprivredna mehanizacija – Sigurnost – 7. dio: Kombajni, kombajni za krmne usjeve, kombajni za pamuk i kombajni za šećernu trsku (ISO 4254-7:2017, **ispravljena verzija 2019-03**; EN ISO 4254-7:2017)  
Agricultural machinery – Safety – Part 7: Combine harvesters, forage harvesters, cotton harvesters and sugar cane harvesters (ISO 4254-7:2017, **Corrected version 2019-03**; EN ISO 4254-7:2017)

### HZN/ TO 182, *Geotehničke konstrukcije*

- **umjesto**

HRN EN ISO 22477-1:2019

Geotehničko istraživanje i ispitivanje – Ispitivanje geotehničkih konstrukcija – 1. dio: Ispitivanje pilota statičkim tlačnim opterećenjem (ISO 22477-1:2018; EN ISO 22477-1:2018)  
Geotechnical investigation and testing – Testing of geotechnical structures – Part 1: Testing of piles: static compression load testing (ISO 22477-1:2018; EN ISO 22477-1:2018)

- **treba biti**

HRN EN ISO 22477-1:2019

Geotehničko istraživanje i ispitivanje – Ispitivanje geotehničkih konstrukcija – 1. dio: Ispitivanje pilota statičkim tlačnim opterećenjem (ISO 22477-1:2018, **ispravljena verzija 2019-03**; EN ISO 22477-1:2018)  
Geotechnical investigation and testing – Testing of geotechnical structures – Part 1: Testing of piles: static compression load testing (ISO 22477-1:2018, **Corrected version 2019-03**; EN ISO 22477-1:2018)

### HZN/ TO 531, *Plastika i guma*

- **umjesto**

HRN EN ISO 1183-1:2019

Plastika – Metode određivanja gustoće nepjenaste plastike – 1. dio: Metoda uranjanja, metoda uporabom piknometra za tekućine i titracijska metoda (ISO 1183-1:2019; EN ISO 1183-1:2019)  
Plastics – Methods for determining the density of non-cellular plastics – Part 1: Immersion method, liquid pyknometer method and titration method (ISO 1183-1:2019; EN ISO 1183-1:2019)

- **treba biti**

HRN EN ISO 1183-1:2019

Plastika – Metode određivanja gustoće nepjenaste plastike – 1. dio: Metoda uranjanja, metoda uporabom piknometra za tekućine i titracijska metoda (ISO 1183-1:2019, **ispravljena verzija 2019-05**; EN ISO 1183-1:2019)  
Plastics – Methods for determining the density of non-cellular plastics – Part 1: Immersion method, liquid pyknometer method and titration method (ISO 1183-1:2019, **Corrected version 2019-05**; EN ISO 1183-1:2019)

## HZN/TO 568, *Analiza hrane – horizontalne metode, mikrobiologija, posuđe i pribor u kontaktu s hranom*

- **umjesto**

HRN EN ISO 22117:2019

Mikrobiologija u lancu hrane – Posebni zahtjevi i upute za ispitivanje **pouzdanosti međulaboratorijskim usporedbama** (ISO 22117:2019; EN ISO 22117:2019)  
Microbiology of the food chain – Specific requirements and guidance for proficiency testing by interlaboratory comparison (ISO 22117:2019; EN ISO 22117:2019)

- **treba biti**

HRN EN ISO 22117:2019

Mikrobiologija u lancu hrane – Posebni zahtjevi i upute za ispitivanje **sposobnosti pomoću međulaboratorijskih usporedbi** (ISO 22117:2019; EN ISO 22117:2019)  
Microbiology of the food chain – Specific requirements and guidance for proficiency testing by interlaboratory comparison (ISO 22117:2019; EN ISO 22117:2019)

## HZN/TO E79, *Alarmni sustavi*

- **umjesto**

HRN EN IEC 62676-2-31:2019

Video nadzorni sustavi za uporabu u primjenama zaštite – Dio 2-31: **Protokoli za prijenos video signala – Primjena IP zajedničkog rada baziranog na web servisima – „Live streaming“ i konfiguracija** (IEC 62676-2-31:2019; EN IEC 62676-2-31:2019)  
Video surveillance systems for use in security applications – Part 2-31: Live streaming and control based on web services (IEC 62676-2-31:2019; EN IEC 62676-2-31:2019)

- **treba biti**

HRN EN IEC 62676-2-31:2019

Video nadzorni sustavi za uporabu u primjenama zaštite – Dio 2-31: **„Live streaming“ i kontrola bazirana na web servisima** (IEC 62676-2-31:2019; EN IEC 62676-2-31:2019)  
Video surveillance systems for use in security applications – Part 2-31: Live streaming and control based on web services (IEC 62676-2-31:2019; EN IEC 62676-2-31:2019)

- **umjesto**

HRN EN IEC 62676-2-32:2019

Video nadzorni sustavi za uporabu u primjenama zaštite – Dio 2-32: **Protokoli za prijenos video signala – Primjena IP zajedničkog rada baziranog na web servisima – Snimanje** (IEC 62676-2-32:2019; EN IEC 62676-2-32:2019)  
Video surveillance systems for use in security applications – Part 2-32: Recording control and replay based on web services (IEC 62676-2-32:2019; EN IEC 62676-2-32:2019)

- **treba biti**

HRN EN IEC 62676-2-32:2019

Video nadzorni sustavi za uporabu u primjenama zaštite – Dio 2-32: **Kontrola snimanja i reprodukcije bazirana na web servisima** (IEC 62676-2-32:2019; EN IEC 62676-2-32:2019)  
Video surveillance systems for use in security applications – Part 2-32: Recording control and replay based on web services (IEC 62676-2-32:2019; EN IEC 62676-2-32:2019)

## HZN/ TU S1, *Zdravlje, okoliš i medicinska oprema 1*

- **umjesto**

HRN EN ISO 7886-1:2018

Sterilne šprice za potkožnu injekciju za jednokratnu upotrebu – 1. dio: Šprice za ručnu upotrebu (ISO 7886-1:2017; EN ISO 7886-1:2018)  
Sterile hypodermic syringes for single use – Part 1: Syringes for manual use (ISO 7886-1:2017; EN ISO 7886-1:2018)

- **treba biti**

HRN EN ISO 7886-1:2018

Sterilne šprice za potkožnu injekciju za jednokratnu upotrebu – 1. dio: Šprice za ručnu upotrebu (ISO 7886-1:2017, **ispravljena verzija 2019-08**; EN ISO 7886-1:2018)  
Sterile hypodermic syringes for single use – Part 1: Syringes for manual use (ISO 7886-1:2017, **Corrected version 2019-08**; EN ISO 7886-1:2018)

## **2 Rezultati međunarodne i europske normizacije razvrstani po predmetnom ustroju**

### **01.040.11 Tehnologija zdravstvene zaštite (Rječnici)**

**Međunarodna normizacija  
ISO**

ISO 19223:2019  
Lung ventilators and related equipment – Vocabulary and semantics

### **01.040.13 Okoliš. Zaštita zdravlja. Sigurnost (Rječnici)**

**Europska normizacija  
CEN**

EN 14564:2019  
Tanks for transport of dangerous goods – Terminology

### **01.040.19 Ispitivanje (Rječnici)**

**Međunarodna normizacija  
ISO**

ISO 12718:2019  
Non-destructive testing – Eddy current testing – Vocabulary

### **01.040.23 Hidraulički i pneumatski sustavi i sastavni dijelovi za opću upotrebu (Rječnici)**

**Europska normizacija  
CEN**

EN 14564:2019  
Tanks for transport of dangerous goods – Terminology

**Međunarodna normizacija  
ISO**

ISO 3529-1:2019  
Vacuum technology – Vocabulary – Part 1: General terms

### **01.040.29 Elektrotehnika (Rječnici)**

**Europska normizacija  
CENELEC**

EN IEC 60633:2019  
High-voltage direct current (HVDC) transmission – Vocabulary (IEC 60633:2019)

### **01.040.31 Elektronika (Rječnici)**

**Europska normizacija  
CEN**

EN ISO 14880-1:2019  
Optics and photonics – Microlens arrays – Part 1: Vocabulary (ISO 14880-1:2019)

### **01.040.59 Tekstilna i kožarska tehnologija (Rječnici)**

**Međunarodna normizacija  
ISO**

ISO 15115:2019  
Leather – Vocabulary

### **01.040.77 Metalurgija (Rječnici)**

**Međunarodna normizacija  
ISO**

ISO 3252:2019  
Powder metallurgy – Vocabulary

### **01.040.79 Drvena tehnologija (Rječnici)**

**Međunarodna normizacija  
ISO**

ISO 5323:2019  
Wood flooring and parquet – Vocabulary

### **01.080.10 Simboli za javne obavijesti**

**Međunarodna normizacija  
ISO**

ISO 7010:2019  
Graphical symbols – Safety colours and safety signs – Registered safety signs

### **01.080.20 Grafički simboli za upotrebu na posebnoj opremi**

**Međunarodna normizacija  
ISO**

ISO 7000:2019  
Graphical symbols for use on equipment – Registered symbols

ISO 7010:2019  
Graphical symbols – Safety colours and safety signs – Registered safety signs

### **01.120 Normizacija. Opća pravila**

**Međunarodna normizacija  
IEC**

IEC Guide 104:2019  
The preparation of safety publications and the use of basic safety publications and group safety publications

### **01.140.20 Informacijske znanosti**

**Međunarodna normizacija  
ISO**

ISO 21110:2019  
Information and documentation – Emergency preparedness and response

ISO 24622-2:2019  
Language resource management – Component metadata infrastructure (CMDI) – Part 2: Component metadata specification language

### **03.080.30 Usluge za potrošače**

**Međunarodna normizacija  
ISO**

ISO 21417:2019  
Recreational diving services – Requirements for training on environmental awareness for recreational divers

### 03.080.99 Ostale usluge

#### Europska normizacija CEN

EN 16844:2017+A2:2019  
Aesthetic medicine services – Non-surgical medical treatments

#### Međunarodna normizacija ISO

ISO/IEC TR 20000-7:2019  
Information technology – Service management – Part 7:  
Guidance on the integration and correlation of  
ISO/IEC 20000-1:2018 to ISO 9001:2015 and ISO/IEC 27001:2013

### 03.100.01 Ustroj poduzeća i upravljanje poduzećem općenito

#### Europska normizacija CENELEC

EN IEC 62402:2019  
Obsolescence management (IEC 62402:2019)

#### Međunarodna normizacija ISO

ISO 56002:2019  
Innovation management – Innovation management system  
– Guidance

### 03.100.40 Istraživanje i razvoj

#### Međunarodna normizacija ISO

ISO 56002:2019  
Innovation management – Innovation management system  
– Guidance

### 03.100.50 Proizvodnja. Upravljanje proizvodnjom

#### Međunarodna normizacija IEC

IEC 62668-2:2019  
Process management for avionics – Counterfeit prevention  
– Part 2: Managing electronic components from  
non-franchised sources

### 03.100.70 Sustavi upravljanja

#### Međunarodna normizacija ISO

ISO 46001:2019  
Water efficiency management systems – Requirements with  
guidance for use

ISO 56002:2019  
Innovation management – Innovation management system  
– Guidance

### 03.200.99 Ostale norme koje se odnose na slobodno vrijeme i turizam

#### Međunarodna normizacija ISO

ISO 21417:2019  
Recreational diving services – Requirements for training on  
environmental awareness for recreational divers

### 03.220.01 Prijevoz općenito

#### Međunarodna normizacija ISO

ISO 21219-2:2019  
Intelligent transport systems – Traffic and travel information  
(TTI) via transport protocol experts group, generation 2  
(TPEG2) – Part 2: UML modelling rules (TPEG2-UMR)

ISO 21219-3:2019  
Intelligent transport systems – Traffic and travel information  
(TTI) via transport protocol experts group, generation 2  
(TPEG2) – Part 3: UML to binary conversion rules  
(TPEG2-UBCR)

ISO 21219-4:2019  
Intelligent transport systems – Traffic and travel information  
(TTI) via transport protocol experts group, generation 2  
(TPEG2) – Part 4: UML to XML conversion rules

ISO 21219-5:2019  
Intelligent transport systems – Traffic and travel information  
(TTI) via transport protocol experts group, generation 2  
(TPEG2) – Part 5: Service framework (TPEG2-SFW)

ISO 21219-6:2019  
Intelligent transport systems – Traffic and travel information (TTI)  
via transport protocol experts group, generation 2 (TPEG2)  
– Part 6: Message management container (TPEG2-MMC)

ISO 21219-18:2019  
Intelligent transport systems – Traffic and travel information  
(TTI) via transport protocol experts group, generation 2  
(TPEG2) – Part 18: Traffic flow and prediction application  
(TPEG2-TFP)

### 03.220.20 Cestovni prijevoz

#### Međunarodna normizacija ISO

ISO 17573-1:2019  
Electronic fee collection – System architecture for  
vehicle-related tolling – Part 1: Reference model

ISO 37158:2019  
Smart community infrastructures – Smart transportation  
using battery-powered buses for passenger services

### 07.030 Fizika. Kemija

#### Međunarodna normizacija ISO

ISO 23016-2:2019  
Fine bubble technology – Agricultural applications – Part 2:  
Test method for evaluating the promotion of the germination  
of barley seeds

### 07.100.30 Mikrobiologija hrane

#### Međunarodna normizacija ISO

ISO 15216-2:2019  
Microbiology of the food chain – Horizontal method for  
determination of hepatitis A virus and norovirus using  
real-time RT-PCR – Part 2: Method for detection

ISO 17410:2019  
Microbiology of the food chain – Horizontal method for the  
enumeration of psychrotrophic microorganisms

### 11.020.10 Usluge zdravstvene zaštite općenito

#### Europska normizacija CEN

EN 16844:2017+A2:2019  
Aesthetic medicine services – Non-surgical medical  
treatments

## 11.040.01 Medicinska oprema općenito

### Međunarodna normizacija IEC

IEC 80601-2-77:2019  
Medical electrical equipment – Part 2-77: Particular requirements for the basic safety and essential performance of robotically assisted surgical equipment

IEC 80601-2-78:2019  
Medical electrical equipment – Part 2-78: Particular requirements for basic safety and essential performance of medical robots for rehabilitation, assessment, compensation or alleviation

## 11.040.10 Anestezijska, respiracijska i reanimacijska oprema

### Međunarodna normizacija ISO

ISO 5356-2 AMD 1:2019  
Anaesthetic and respiratory equipment – Conical connectors – Part 2: Screw-threaded weight-bearing connectors; Amendment 1

ISO 19223:2019  
Lung ventilators and related equipment – Vocabulary and semantics

## 11.040.30 Kirurški instrumenti i materijali

### Međunarodna normizacija IEC

IEC 80601-2-77:2019  
Medical electrical equipment – Part 2-77: Particular requirements for the basic safety and essential performance of robotically assisted surgical equipment

## 11.040.40 Implantati za kirurgiju, protetiku i ortotiku

### Europska normizacija CEN

EN ISO 16054:2019  
Implants for surgery – Minimum data sets for surgical implants (ISO 16054:2019)

### Međunarodna normizacija ISO

ISO 22622:2019  
Implants for surgery – Wear of total ankle-joint prostheses – Loading and displacement parameters for wear-testing machines with load or displacement control and corresponding environmental conditions for test

## 11.040.55 Dijagnostička oprema

### Međunarodna normizacija ISO

ISO 8600-3:2019  
Endoscopes – Medical endoscopes and endotherapy devices – Part 3: Determination of field of view and direction of view of endoscopes with optics

## 11.040.60 Terapeutska oprema

### Međunarodna normizacija IEC

IEC 63009:2019  
Ultrasonics – Physiotherapy systems – Field specifications and methods of measurement in the frequency range 20 kHz to 500 kHz

IEC 80601-2-78:2019  
Medical electrical equipment – Part 2-78: Particular requirements for basic safety and essential performance of medical robots for rehabilitation, assessment, compensation or alleviation

## 11.080.20 Dezinficijensi i antiseptici

### Europska normizacija CEN

EN 13697:2015+A1:2019  
Chemical disinfectants and antiseptics – Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas – Test method and requirements without mechanical action (phase 2, step 2)

EN 14476:2013+A2:2019  
Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of virucidal activity in the medical area – Test method and requirements (Phase 2/Step 1)

## 11.140 Bolnička oprema

### Europska normizacija CEN

EN 14683:2019+AC:2019  
Medical face masks – Requirements and test methods

## 11.180.01 Pomagala za osobe s invaliditetom općenito

### Europska normizacija CEN

EN ISO 20342-1:2019  
Assistive products for tissue integrity when lying down – Part 1: General Requirements (ISO 20342-1:2019)

## 11.200 Kontrola rađanja. Mehanička kontracepcijska sredstva

### Međunarodna normizacija ISO

ISO 19351:2019  
Fallopian rings – Requirements and test methods

## 13.020.10 Upravljanje okolišem

### Europska normizacija CEN

EN ISO 14005:2019  
Environmental management systems – Guidelines for a flexible approach to phased implementation (ISO 14005:2019)

## 13.020.20 Ekogospodarstvo

### Međunarodna normizacija ISO

ISO 37158:2019  
Smart community infrastructures – Smart transportation using battery-powered buses for passenger services

### 13.020.40 Onečišćenje, nadzor nad onečišćenjem i zaštita od onečišćenja

#### Međunarodna normizacija ISO

ISO 20468-2:2019  
Guidelines for performance evaluation of treatment technologies for water reuse systems – Part 2: Methodology to evaluate performance of treatment systems on the basis of greenhouse gas emissions

### 13.020.99 Ostale norme koje se odnose na zaštitu okoliša

#### Međunarodna normizacija ISO

ISO 21417:2019  
Recreational diving services – Requirements for training on environmental awareness for recreational divers

### 13.040.20 Atmosfera okoliša

#### Međunarodna normizacija ISO

ISO 16000-40:2019  
Indoor air – Part 40: Indoor air quality management system

### 13.040.40 Emisije iz stacionarnih izvora

#### Europska normizacija CEN

EN 17255-1:2019  
Stationary source emissions – Data acquisition and handling systems – Part 1: Specification of requirements for the handling and reporting of data

### 13.040.50 Emisije plinova iz prijevoznih sredstava

#### Međunarodna normizacija ISO

ISO 8178-9:2019  
Reciprocating internal combustion engines – Exhaust emission measurement – Part 9: Test cycles and test procedures for measurement of exhaust gas smoke emissions from compression ignition engines using an opacimeter

ISO 21755-1:2019  
Motorcycles – Measurement method for evaporative emissions – Part 1: SHED test procedure

### 13.060.01 Kvaliteta vode općenito

#### Međunarodna normizacija ISO

ISO 20468-2:2019  
Guidelines for performance evaluation of treatment technologies for water reuse systems – Part 2: Methodology to evaluate performance of treatment systems on the basis of greenhouse gas emissions

ISO 46001:2019  
Water efficiency management systems – Requirements with guidance for use

### 13.060.50 Ispitivanje voda na kemijske tvari

#### Međunarodna normizacija ISO

ISO 5815-1:2019  
Water quality – Determination of biochemical oxygen demand after n days (BOD<sub>n</sub>) – Part 1: Dilution and seeding method with allylthiourea addition

### 13.180 Ergonomija

#### Europska normizacija CEN

EN ISO 10551:2019  
Ergonomics of the physical environment – Subjective judgement scales for assessing physical environments (ISO 10551:2019)

#### Međunarodna normizacija ISO

ISO 16505:2019  
Road vehicles – Ergonomic and performance aspects of Camera Monitor Systems – Requirements and test procedures

### 13.220.01 Zaštita od požara općenito

#### Međunarodna normizacija ISO

ISO 26367-1:2019  
Guidelines for assessing the adverse environmental impact of fire effluents – Part 1: General

### 13.220.20 Zaštita od požara

#### Međunarodna normizacija IEC

IEC/TR 62757 AMD 1:2019  
Fire prevention measures on converters for high-voltage direct current (HVDC) systems, static var compensators (SVC) and flexible ac transmission systems (FACTS) and their valve halls; Amendment 1

IEC/TR 62757 Edition 1.1:2019  
Fire prevention measures on converters for high-voltage direct current (HVDC) systems, static var compensators (SVC) and flexible ac transmission systems (FACTS) and their valve halls

### 13.220.40 Zapaljivost i ponašanje materijala i proizvoda pri izgaranju

#### Europska normizacija CEN

EN 15659:2019  
Secure storage units – Classification and methods of test for resistance to fire – Light fire storage units

#### Međunarodna normizacija ISO

ISO 11907-1:2019  
Plastics – Smoke generation – Determination of the corrosivity of fire effluents – Part 1: General concepts and applicability



### 13.260      **Zaštita od električnog udara. Rad pod naponom**

#### Međunarodna normizacija IEC

IEC 61482-1-1:2019  
Live working – Protective clothing against the thermal hazards of an electric arc – Part 1-1: Test methods – Method 1: Determination of the arc rating (ELIM, ATPV and/or EBT) of clothing materials and of protective clothing using an open arc

### 13.300      **Zaštita od opasnih tvari**

#### Europska normizacija CEN

EN 14564:2019  
Tanks for transport of dangerous goods – Terminology

### 13.310      **Zaštita od kriminala**

#### Europska normizacija CEN

EN 15659:2019  
Secure storage units – Classification and methods of test for resistance to fire – Light fire storage units

### 13.340.10   **Zaštitna odjeća**

#### Europska normizacija CEN

EN ISO 11393-5:2019  
Protective clothing for users of hand-held chainsaws – Part 5: Performance requirements and test methods for protective gaiters (ISO 11393-5:2018)

EN ISO 11393-6:2019  
Protective clothing for users of hand-held chainsaws – Part 6: Performance requirements and test methods for upper body protectors (ISO 11393-6:2018)

#### Međunarodna normizacija ISO

ISO 19912:2019  
Ships and marine technology – Servicing of immersion suits, anti-exposure suits and constant wear suits

#### IEC

IEC 61482-1-1:2019  
Live working – Protective clothing against the thermal hazards of an electric arc – Part 1-1: Test methods – Method 1: Determination of the arc rating (ELIM, ATPV and/or EBT) of clothing materials and of protective clothing using an open arc

### 13.340.70   **Prsluci za spašavanje, plutajuća pomagala i plutajuće naprave**

#### Međunarodna normizacija ISO

ISO 19912:2019  
Ships and marine technology – Servicing of immersion suits, anti-exposure suits and constant wear suits

### 17.140.20   **Buka koju proizvode strojevi i oprema**

#### Europska normizacija CEN

EN 13487:2019  
Heat exchanger – Forced convection air cooled refrigerant condensers and dry coolers – Sound measurement

#### CENELEC

EN IEC 60704-2-16:2019  
Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-16: Particular requirements for washer-dryers (IEC 60704-2-16:2019)

#### Međunarodna normizacija ISO

ISO 20361:2019  
Liquid pumps and pumps units – Noise test code – Grades 2 and 3 of accuracy

### 17.140.30   **Buka koju proizvode prijevozna sredstva**

#### Međunarodna normizacija ISO

ISO 5130:2019  
Acoustics – Measurements of sound pressure level emitted by stationary road vehicles

ISO 13325:2019  
Tyres – Coast-by methods for measurement of tyre-to-road sound emission

ISO 17208-2:2019  
Underwater acoustics – Quantities and procedures for description and measurement of underwater sound from ships – Part 2: Determination of source levels from deep water measurements

### 17.160      **Vibracije, udari i mjerenja vibracija**

#### Međunarodna normizacija ISO

ISO 10813-2:2019  
Vibration-generating machines – Guidance for selection – Part 2: Equipment for dynamic structural testing

### 17.180.20   **Boje i mjerenje svjetlosti**

#### Europska normizacija CEN

EN ISO/CIE 11664-1:2019  
Colorimetry – Part 1: CIE standard colorimetric observers (ISO/CIE 11664-1:2019)

EN ISO/CIE 11664-3:2019  
Colorimetry – Part 3: CIE tristimulus values (ISO/CIE 11664-3:2019)

EN ISO/CIE 11664-4:2019  
Colorimetry – Part 4: CIE 1976 L\*a\*b\* colour space (ISO/CIE 11664-4:2019)

### 17.180.30   **Optički mjerni instrumenti**

#### Europska normizacija CENELEC

EN IEC 62129-3:2019  
Calibration of wavelength/optical frequency measurement instruments – Part 3: Optical frequency meters internally referenced to a frequency comb (IEC 62129-3:2019)

### 17.220.20   **Mjerenje električnih i magnetskih veličina**

#### Europska normizacija CENELEC

EN IEC 61400-21-1:2019  
Wind energy generation systems – Part 21-1: Measurement and assessment of electrical characteristics – Wind turbines (IEC 61400-21-1:2019)

EN IEC 61869-9:2019  
Instrument transformers – Part 9: Digital interface for instrument transformers (IEC 61869-9:2016)

EN IEC 61869-14:2019  
Instrument transformers – Part 14: Additional requirements for current transformers for DC applications (IEC 61869-14:2018)

EN IEC 61869-15:2019  
Instrument transformers – Part 15: Additional requirements for voltage transformers for DC applications (IEC 61869-15:2018)

EN IEC 62812:2019  
Low resistance measurements – Methods and guidance (IEC 62812:2019)

## Međunarodna normizacija IEC

IEC 61557-1:2019  
Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 1: General requirements

IEC 61557-2:2019  
Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 2: Insulation resistance

IEC 61557-3:2019  
Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 3: Loop impedance

IEC 61557-4:2019  
Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 4: Resistance of earth connection and equipotential bonding

IEC 61557-5:2019  
Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 5: Resistance to earth

IEC 61557-6:2019  
Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 6: Effectiveness of residual current devices (RCD) in TT, TN and IT systems

IEC 61557-7:2019  
Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 7: Phase sequence

## 17.240 Mjerenja zračenja

### Međunarodna normizacija IEC

IEC 61563:2019  
Radiation protection instrumentation – Equipment for measuring the activity concentration of gamma-emitting radionuclides in foodstuffs

IEC/TR 61577-5:2019  
Radiation protection instrumentation – Radon and radon decay product measuring instruments – Part 5: General properties of radon and radon decay products and their measurement methods

IEC 62597:2019  
Magnetic field levels generated by electronic and electrical apparatus in the railway environment with respect to human exposure – Measurement procedures

## 19.040 Ispitivanje utjecaja okoliša

### Europska normizacija CENELEC

EN IEC 60068-2-82:2019  
Environmental testing – Part 2-82: Tests – Test Xw1: Whisker test methods for components and parts used in electronic assemblies (IEC 60068-2-82:2019)

EN IEC 60721-3-3:2019  
Classification of environmental conditions – Part 3-3: Classification of groups of environmental parameters and their severities – Stationary use at weatherprotected locations (IEC 60721-3-3:2019)

EN IEC 60721-3-4:2019  
Classification of environmental conditions – Part 3-4: Classification of groups of environmental parameters and their severities – Stationary use at non-weatherprotected locations (IEC 60721-3-4:2019)

### Međunarodna normizacija IEC

IEC 60068-2-67 AMD 1:2019  
Environmental testing – Part 2-67: Tests – Test Cy: Damp heat, steady state, accelerated test primarily intended for components; Amendment 1

IEC 60068-2-67 Edition 1.1:2019  
Environmental testing – Part 2-67: Tests – Test Cy: Damp heat, steady state, accelerated test primarily intended for components

## 19.100 Nerazorna ispitivanja

### Međunarodna normizacija ISO

ISO 12718:2019  
Non-destructive testing – Eddy current testing – Vocabulary

## 21.060.01 Spojni elementi općenito

### Međunarodna normizacija ISO

ISO 3269:2019  
Fasteners – Acceptance inspection

## 21.060.10 Vijci i svorni vijci

### Europska normizacija CEN

EN ISO 7053:2019  
Fasteners – Hexagon washer head tapping screws (ISO 7053:2019)

EN ISO 15480:2019  
Fasteners – Hexagon washer head drilling screws with tapping screw thread (ISO 15480:2019)

## 21.100.10 Klizni ležajevi

### Međunarodna normizacija ISO

ISO 13939:2019  
Foil bearings – Performance testing of foil journal bearings – Testing of static load capacity, friction coefficient and lifetime

## 23.020.20 Posude i kontejneri ugrađeni na vozila

Europska normizacija  
CEN

EN 14564:2019  
Tanks for transport of dangerous goods – Terminology

## 23.020.35 Plinske boce

Europska normizacija  
CEN

EN ISO 14456/A1:2019  
Gas cylinders – Gas properties and associated classification (FTSC) codes – Amendment 1 (ISO 14456:2015/Amd 1:2019)

## 23.040.20 Plastične cijevi

Međunarodna normizacija  
ISO

ISO 7685:2019  
Glass-reinforced thermosetting plastics (GRP) pipes – Determination of initial ring stiffness

ISO 8483:2019  
Glass-reinforced thermosetting plastics (GRP) pipes and fittings – Test methods to prove the design of bolted flange joints

ISO 8533:2019  
Glass-reinforced thermosetting plastics (GRP) pipes and fittings – Test methods to prove the design of cemented or wrapped joints

## 23.040.45 Plastične spojnice

Međunarodna normizacija  
ISO

ISO 8483:2019  
Glass-reinforced thermosetting plastics (GRP) pipes and fittings – Test methods to prove the design of bolted flange joints

ISO 8533:2019  
Glass-reinforced thermosetting plastics (GRP) pipes and fittings – Test methods to prove the design of cemented or wrapped joints

## 23.040.60 Prirubnice, spojnice i spojevi

Međunarodna normizacija  
ISO

ISO 9624:2019  
Thermoplastics piping systems for fluids under pressure – Flange adapters and loose backing flanges – Mating dimensions

## 23.040.70 Crijeva i crijevni sklopovi

Međunarodna normizacija  
ISO

ISO 1403:2019  
Rubber hoses, textile-reinforced, for general-purpose water applications – Specification

## 23.080 Pumpe

Međunarodna normizacija  
ISO

ISO 20361:2019  
Liquid pumps and pumps units – Noise test code – Grades 2 and 3 of accuracy

## 23.100.10 Pumpe i motori

Međunarodna normizacija  
ISO

ISO 4409:2019  
Hydraulic fluid power – Positive-displacement pumps, motors and integral transmissions – Methods of testing and presenting basic steady state performance

## 23.100.40 Cijevovodi i spojnice

Međunarodna normizacija  
ISO

ISO 4399:2019  
Fluid power systems and components – Connectors and associated components – Nominal pressures

## 23.100.50 Upravljački sastavni dijelovi

Međunarodna normizacija  
ISO

ISO 5783:2019  
Hydraulic fluid power – Code for identification of valve mounting surfaces and cartridge valve cavities

## 23.120 Ventilatori. Klimatizacijski uređaji

Europska normizacija  
CENELEC

EN IEC 60879:2019  
Comfort fans and regulators for household and similar purposes – Methods for measuring performance (IEC 60879:2019)

## 23.160 Vakuumska tehnologija

Međunarodna normizacija  
ISO

ISO 3529-1:2019  
Vacuum technology – Vocabulary – Part 1: General terms

## 25.030 Proizvodnja aditiva

Međunarodna normizacija  
ISO

ISO/ASTM 52902:2019  
Additive manufacturing – Test artifacts – Geometric capability assessment of additive manufacturing systems

ISO/ASTM 52904:2019  
Additive manufacturing – Process characteristics and performance – Practice for metal powder bed fusion process to meet critical applications

ISO/ASTM 52911-1:2019  
Additive manufacturing – Design – Part 1: Laser-based powder bed fusion of metals

## 25.040.30 Industrijski roboti. Manipulatori

Europska normizacija  
CEN

CWA 17384:2019  
Articulated industrial robots – Elastostatic compliance calibration

## 25.040.40 Mjerenje i upravljanje u industrijskim procesima

### Europska normizacija CENELEC

EN IEC 61131-10:2019  
Programmable controllers – Part 10: PLC open XML exchange format (IEC 61131-10:2019)

CLC IEC/TR 61511-0:2019  
Functional safety – Safety instrumented systems for the process industry sector – Part 0: Functional safety for the process industry and IEC 61511 (IEC/TR 61511-0:2018)

## 25.080.01 Alatni strojevi općenito

### Međunarodna normizacija ISO

ISO 14955-4:2019  
Machine tools – Environmental evaluation of machine tools – Part 4: Principles for measuring metal-forming machine tools and laser processing machine tools with respect to energy efficiency

## 25.080.50 Strojevi za brušenje i poliranje

### Međunarodna normizacija IEC

IEC 62841-3-4 AMD 1:2019  
Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 3-4: Particular requirements for transportable bench grinders; Amendment 1

IEC 62841-3-4 Edition 1.1:2019  
Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 3-4: Particular requirements for transportable bench grinders

## 25.140.20 Električni alati

### Međunarodna normizacija IEC

IEC 62841-3-4 AMD 1:2019  
Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 3-4: Particular requirements for transportable bench grinders; Amendment 1

IEC 62841-3-4 Edition 1.1:2019  
Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 3-4: Particular requirements for transportable bench grinders

## 25.160.10 Procesi zavarivanja

### Međunarodna normizacija ISO

ISO 15614-1 AMD 1:2019  
Specification and qualification of welding procedures for metallic materials – Welding procedure test – Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys; Amendment 1

## 25.160.30 Oprema za zavarivanje

### Međunarodna normizacija ISO

ISO 3821:2019  
Gas welding equipment – Rubber hoses for welding, cutting and allied processes

## 25.160.40 Zavareni spojevi i zavari

### Međunarodna normizacija ISO

ISO 18592:2019  
Resistance welding – Destructive testing of welds – Method for the fatigue testing of multi-spot-welded specimens

## 25.220.10 Priprema površina

### Međunarodna normizacija ISO

ISO/TR 22770:2019  
Preparation of steel substrates before application of paints and related products – Analytical colorimetry method to support visual assessment of surface preparation grades

## 25.220.50 Emajli

### Međunarodna normizacija ISO

ISO 28763:2019  
Vitreous and porcelain enamels – Regenerative, enamelled and packed panels for air-gas and gas-gas heat exchangers – Specifications

## 27.015 Energetska učinkovitost. Očuvanje energije općenito

### Europska normizacija CENELEC

CLC/TR 50600-99-1:2019  
Information technology – Data centre facilities and infrastructures – Part 99-1: Recommended practices for energy management

CLC/TR 50600-99-2:2019  
Information technology – Data centre facilities and infrastructures – Part 99-2: Recommended practices for environmental sustainability

## 27.020 Motori s unutrašnjim izgaranjem

### Međunarodna normizacija ISO

ISO 19013-1:2019  
Rubber hoses and tubing for fuel circuits for internal combustion engines – Specification – Part 1: Diesel fuels

ISO 8178-9:2019  
Reciprocating internal combustion engines – Exhaust emission measurement – Part 9: Test cycles and test procedures for measurement of exhaust gas smoke emissions from compression ignition engines using an opacimeter

## 27.060.20 Plinski plamenici

### Europska normizacija CEN

EN 521:2019+AC:2019  
Specifications for dedicated liquefied petroleum gas appliances – Portable vapour pressure liquefied petroleum gas appliances

## 27.060.30 Kotlovi i izmjenjivači topline

### Europska normizacija CEN

EN 13487:2019  
Heat exchanger – Forced convection air cooled refrigerant condensers and dry coolers – Sound measurement

## 27.070 Gorivi članci

### Europska normizacija CENELEC

- EN IEC 62282-6-400:2019  
Fuel cell technologies – Part 6-400: Micro fuel cell power systems – Power and data interchangeability (IEC 62282-6-400:2019)

## 27.160 Solarna energetika

### Europska normizacija CENELEC

- EN IEC 60904-3:2019  
Photovoltaic devices – Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data (IEC 60904-3:2019)

### Međunarodna normizacija IEC

- IEC/TR 63228:2019  
Measurement protocols for photovoltaic devices based on organic, dye-sensitized or perovskite materials

## 27.180 Sustavi vjetroagregata

### Europska normizacija CENELEC

- EN IEC 61400-21-1:2019  
Wind energy generation systems – Part 21-1: Measurement and assessment of electrical characteristics – Wind turbines (IEC 61400-21-1:2019)

- EN IEC 61400-26-1:2019  
Wind energy generation systems – Part 26-1: Availability for wind energy generation systems (IEC 61400-26-1:2019)

### Međunarodna normizacija IEC

- IEC 61400-24:2019  
Wind energy generation systems – Part 24: Lightning protection

## 27.200 Rashladna tehnologija (tehnika)

### Europska normizacija CEN

- EN 17066-1:2019  
Insulated means of transport for temperature sensitive goods – Requirements and testing – Part 1: Container

## 29.020 Elektrotehnika općenito

### Europska normizacija CENELEC

- EN IEC 62402:2019  
Obsolescence management (IEC 62402:2019)

### Međunarodna normizacija IEC

- IEC Guide 104:2019  
The preparation of safety publications and the use of basic safety publications and group safety publications

## 29.035.20 Plastični i gumeni izolacijski materijali

### Europska normizacija CENELEC

- EN IEC 62677-3-103:2019  
Heat-shrinkable low and medium voltage moulded shapes – Part 3: Specification for individual materials – Sheet 103: Heat-shrinkable, polyolefin, conductive moulded shapes for medium voltage applications (IEC 62677-3-103:2019)

## 29.040.10 Izolacijska ulja

### Europska normizacija CENELEC

- EN IEC 63012:2019  
Insulating liquids – Unused modified or blended esters for electrotechnical applications (IEC 63012:2019)

## 29.060.10 Žice

### Europska normizacija CENELEC

- EN 60317-35:2014/A1:2019  
Specifications for particular types of winding wires – Part 35: Solderable polyurethane enamelled round copper wire, class 155, with a bonding layer (IEC 60317-35:2013/A1:2019)

- EN 60317-36:2014/A1:2019  
Specifications for particular types of winding wires – Part 36: Solderable polyesterimide enamelled round copper wire, class 180, with a bonding layer (IEC 60317-36:2013/A1:2019)

- EN 60317-55:2014/A1:2019  
Specifications for particular types of winding wires – Part 55: Solderable polyurethane enamelled round copper wire overcoated with polyamide, class 180 (IEC 60317-55:2013/A1:2019)

- EN 60317-68:2017/A1:2019  
Specifications for particular types of winding wires – Part 68: Polyvinyl acetal enamelled rectangular aluminium wire, class 120 (IEC 60317-68:2017/A1:2019)

- EN IEC 60851-2:2009/A2:2019  
Winding wires – Test methods – Part 2: Determination of dimensions (IEC 60851-2:2009/A2:2019)

## 29.100.10 Magnetski sastavni dijelovi

### Međunarodna normizacija IEC

- IEC 61333:2019  
Marking on ferrite cores

## 29.120.10 Zaštitne cijevi za električne potrebe

### Europska normizacija CENELEC

- EN 61386-1:2008/A1:2019  
Conduit systems for cable management – Part 1: General requirements (IEC 61386-1:2008/A1:2017)

## 29.120.70 Sklopnici (releji)

### Međunarodna normizacija IEC

- IEC 61810-10:2019  
Electromechanical elementary relays – Part 10: Additional functional aspects and safety requirements for high-capacity relays

## 29.130.10 Visokonaponski rasklopni i upravljački uređaji

### Europska normizacija CENELEC

EN IEC 62271-107:2019  
High-voltage switchgear and controlgear – Part 107:  
Alternating current fused circuit-switchers for rated voltages  
above 1 kV up to and including 52 kV (IEC 62271-107:2019)

CLC IEC/TR 62271-307:2019  
High-voltage switchgear and controlgear – Part 307:  
Guidance for the extension of validity of type tests of AC metal  
and solid-insulation enclosed switchgear and controlgear for  
rated voltages above 1 kV and up to and including 52 kV  
(IEC/TR 62271-307:2015)

## 29.130.20 Niskonaponski rasklopni i upravljački uređaji

### Europska normizacija CENELEC

EN IEC 62026-1:2019  
Low-voltage switchgear and controlgear – Controller-device  
interfaces (CDIs) – Part 1: General rules (IEC 62026-1:2019)

### Međunarodna normizacija IEC

IEC 60947-2 AMD 1:2019  
Low-voltage switchgear and controlgear – Part 2: Circuit-breakers;  
Amendment 1

IEC 60947-2 Edition 5.1:2019  
Low-voltage switchgear and controlgear – Part 2: Circuit-breakers

IEC 62026-2 AMD 1:2019  
Low-voltage switchgear and controlgear – Controller-device  
interfaces (CDIs) – Part 2: Actuator sensor interface (AS-i);  
Amendment 1

IEC 62026-2 Edition 2.1:2019  
Low-voltage switchgear and controlgear – Controller-device  
interfaces (CDIs) – Part 2: Actuator sensor interface (AS-i)

## 29.140.30 Fluorescentne svjetiljke. Svjetiljke s izbojem

### Europska normizacija CENELEC

EN IEC 62386-104:2019  
Digital addressable lighting interface – Part 104: General  
requirements – Wireless and alternative wired system  
components (IEC 62386-104:2019)

## 29.140.50 Rasvjetni instalacijski sustavi

### Europska normizacija CENELEC

EN IEC 62386-104:2019  
Digital addressable lighting interface – Part 104: General  
requirements – Wireless and alternative wired system  
components (IEC 62386-104:2019)

## 29.140.99 Ostale norme koje se odnose na svjetiljke

### Europska normizacija CENELEC

EN IEC 63128:2019  
Lighting control interface for dimming – Analogue voltage  
dimming interface for electronic current sourcing controlgear  
(IEC 63128:2019)

EN IEC 63146:2019  
LED packages for general lighting – Specification sheet  
(IEC 63146:2019)

### Međunarodna normizacija IEC

IEC/TR 63037:2019  
Electrical interface specifications for self ballasted lamps and  
controlgear in phase-cut dimmed lighting systems

## 29.160.40 Električni agregati

### Europska normizacija CENELEC

EN IEC 62040-1:2019  
Uninterruptible power systems (UPS) – Part 1: Safety  
requirements (IEC 62040-1:2017)

## 29.200 Ispravljači. Pretvarači. Stabilizirano napajanje

### Europska normizacija CENELEC

EN IEC 60633:2019  
High-voltage direct current (HVDC) transmission – Vocabulary  
(IEC 60633:2019)

EN IEC 62040-1:2019  
Uninterruptible power systems (UPS) – Part 1: Safety  
requirements (IEC 62040-1:2017)

### Međunarodna normizacija IEC

IEC/TR 62757 AMD 1:2019  
Fire prevention measures on converters for high-voltage direct  
current (HVDC) systems, static var compensators (SVC) and  
flexible ac transmission systems (FACTS) and their valve  
halls; Amendment 1

IEC/TR 62757 Edition 1.1:2019  
Fire prevention measures on converters for high-voltage  
direct current (HVDC) systems, static var compensators  
(SVC) and flexible ac transmission systems (FACTS) and  
their valve halls

## 29.220.10 Primarni članci i baterije

### Europska normizacija CENELEC

EN IEC 60086-4:2019  
Primary batteries – Part 4: Safety of lithium batteries  
(IEC 60086-4:2019)

## 29.260.20 Električni uređaji za eksplozivnu atmosferu

### Međunarodna normizacija IEC

IECEx 03A:2019  
Guidance for Applications from Service Facilities seeking  
IECEx Certification, IECEx 03A; Edition 2.1

## 29.280 Oprema za električnu vuču

### Međunarodna normizacija IEC

IEC 62597:2019  
Magnetic field levels generated by electronic and electrical  
apparatus in the railway environment with respect to human  
exposure – Measurement procedures

## **31.020      Elektronički sastavni dijelovi općenito**

### **Međunarodna normizacija IEC**

IECQ 03-3-2:2019  
Rules of procedure – Part 3-2: IECQ approved component products, related materials & assemblies scheme – IECQ approved component – automotive qualification programme (IECQ AC-AQP)

## **31.040.01   Otpornici općenito**

### **Europska normizacija CENELEC**

EN IEC 62812:2019  
Low resistance measurements – Methods and guidance (IEC 62812:2019)

## **31.040.30   Termistori**

### **Međunarodna normizacija IEC**

IEC 60539-2:2019  
Directly heated negative temperature coefficient thermistors – Part 2: Sectional specification – Surface mount negative temperature coefficient thermistors

## **31.080.99   Ostale poluvodičke naprave**

### **Međunarodna normizacija IEC**

IEC 62830-6:2019  
Semiconductor devices – Semiconductor devices for energy harvesting and generation – Part 6: Test and evaluation methods for vertical contact mode triboelectric energy harvesting devices

## **31.140      Piezoelektrične naprave**

### **Europska normizacija CENELEC**

EN IEC 62884-4:2019  
Measurement techniques of piezoelectric, dielectric and electrostatic oscillators – Part 4: Short-term frequency stability test methods (IEC 62884-4:2019)

## **31.180      Tiskani krugovi i pločice**

### **Europska normizacija CEN**

EN 16602-70-60:2019  
Space product assurance – Qualification and Procurement of printed circuit boards

### **CENELEC**

EN 61188-6-4:2019  
Printed boards and printed board assemblies – Design and use – Part 6-4: Land pattern design – Generic requirements for dimensional drawings of surface mounted components (SMD) from the viewpoint of land pattern design (IEC 61188-6-4:2019)

### **Međunarodna normizacija IEC**

IEC 62899-502-2:2019  
Printed electronics – Part 502-2: Quality assessment – Organic light emitting diode (OLED) elements – Combined mechanical and environmental stress test methods for flexible OLED elements

## **31.190      Sklopovi elektroničkih sastavnih dijelova**

### **Europska normizacija CENELEC**

EN 61188-6-4:2019  
Printed boards and printed board assemblies – Design and use – Part 6-4: Land pattern design – Generic requirements for dimensional drawings of surface mounted components (SMD) from the viewpoint of land pattern design (IEC 61188-6-4:2019)

## **31.220.01   Elektromehanički sastavni dijelovi općenito**

### **Europska normizacija CENELEC**

EN IEC 60512-11-1:2019  
Connectors for electrical and electronic equipment – Tests and measurements – Part 11-1: Climatic tests – Test 11a – Climatic sequence (IEC 60512-11-1:2019)

## **31.260      Optoelektronika. Laserska oprema**

### **Europska normizacija CEN**

EN ISO 14880-1:2019  
Optics and photonics – Microlens arrays – Part 1: Vocabulary (ISO 14880-1:2019)

### **Međunarodna normizacija IEC**

IEC 62899-502-2:2019  
Printed electronics – Part 502-2: Quality assessment – Organic light emitting diode (OLED) elements – Combined mechanical and environmental stress test methods for flexible OLED elements

## **33.040.01   Telekomunikacijski sustavi općenito**

### **Europska normizacija ETSI**

ETSI EG 203499 V 1.1.1:2019  
Human Factors (HF) – User-centred terminology for existing and upcoming ICT devices, services and applications

## **33.040.35   Telefonske mreže**

### **Europska normizacija ETSI**

ETSI TS 102677 V 1.1.1:2019  
Lawful Interception (LI) – Dynamic Triggering of Interception angezeigt: 2019-09

ETSI TS 103221-1 V 1.5.1:2019  
Lawful Interception (LI) – Part 1: Internal Network Interface X1 for Lawful Interception

## **33.060.20   Prijamna i odašiljačka oprema**

### **Europska normizacija ETSI**

EN 300328 V 2.2.2:2019  
Wideband transmission systems – Data transmission equipment operating in the 2,4 GHz band – Harmonised Standard for access to radio spectrum

### 33.070.10 Terestrijalni trunking radio (TETRA)

#### Evropska normizacija ETSI

EN 300392-7 V 3.5.1:2019  
Terrestrial Trunked Radio (TETRA) – Voice plus Data (V+D)  
– Part 7: Security

### 33.070.30 Digitalne poboljšane bežične telekomunikacije (DECT)

#### Evropska normizacija ETSI

ETSI TS 102527-1 V 1.5.1:2019  
Digital Enhanced Cordless Telecommunications (DECT)  
– New Generation DECT – Part 1: Wideband speech

ETSI TS 102527-3 V 1.7.1:2019  
Digital Enhanced Cordless Telecommunications (DECT)  
– New Generation DECT – Part 3: Extended wideband speech services

ETSI TS 102527-5 V 1.3.1:2019  
Digital Enhanced Cordless Telecommunications (DECT)  
– New Generation DECT – Part 5: Additional feature set nr. 1 for extended wideband speech services

### 33.070.50 Globalni sustavi za pokretne komunikacije (GSM)

#### Evropska normizacija ETSI

ETSI TS 122101 V 15.7.0:2019-07  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Service aspects – Service principles  
(3GPP TS 22.101 version 15.7.0 Release 15)

ETSI TS 122141 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Presence service – Stage 1  
(3GPP TS 22.141 version 15.0.0 Release 15)

ETSI TS 122142 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– Value Added Services (VAS) for Short Message Service (SMS) requirements (3GPP TS 22.142 version 15.0.0 Release 15)

ETSI TS 122146 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Multimedia Broadcast/Multicast Service (MBMS)  
– Stage 1 (3GPP TS 22.146 version 15.0.0 Release 15)

ETSI TS 122174 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Push Service – Service aspects – Stage 1  
(3GPP TS 22.174 version 15.0.0 Release 15)

ETSI TS 122220 V 15.0.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– Service requirements for Home Node B (HNB) and Home eNode B (HeNB) (3GPP TS 22.220 version 15.0.0 Release 15)

ETSI TS 122243 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Speech recognition framework for automated voice services – Stage 1 (3GPP TS 22.243 version 15.0.0 Release 15)

ETSI TS 122259 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS) – LTE  
– Service requirements for Personal Network Management (PNM) – Stage 1 (3GPP TS 22.259 version 15.0.0 Release 15)

ETSI TS 122368 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS) – LTE  
– Service requirements for Machine-Type Communications (MTC) – Stage 1 (3GPP TS 22.368 version 15.0.0 Release 15)

ETSI TR 122906 V 15.0.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Study on IMS based peer-to-peer content distribution services (3GPP TR 22.906 version 15.0.0 Release 15)

ETSI TR 122947 V 15.0.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– Study on Personal Broadcast Service (PBS)  
(3GPP TR 22.947 version 15.0.0 Release 15)

ETSI TR 122980 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Network composition feasibility study  
(3GPP TR 22.980 version 15.0.0 Release 15)

ETSI TR 122982 V 15.0.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Study of Customised Alerting Tone (CAT) requirements (3GPP TR 22.982 version 15.0.0 Release 15)

ETSI TR 122988 V 15.0.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Study on alternatives to E.164 for Machine-Type Communications (MTC) (3GPP TR 22.988 version 15.0.0 Release 15)

ETSI TS 124229 V 14.12.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) – Stage 3 (3GPP TS 24.229 version 14.12.0 Release 14)

ETSI TS 124229 V 15.7.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) – Stage 3 (3GPP TS 24.229 version 15.7.0 Release 15)

ETSI TS 124301 V 15.7.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– 5G – Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS) – Stage 3 (3GPP TS 24.301 version 15.7.0 Release 15)

ETSI TS 124302 V 15.7.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Access to the 3GPP Evolved Packet Core (EPC) via non-3GPP access networks – Stage 3 (3GPP TS 24.302 version 15.7.0 Release 15)

ETSI TS 124424 V 15.2.0:2019  
LTE – Management Object (MO) for Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services (SS) (3GPP TS 24.424 version 15.2.0 Release 15)

ETSI TS 124623 V 14.3.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services (3GPP TS 24.623 version 14.3.0 Release 14)

ETSI TS 124623 V 15.1.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services (3GPP TS 24.623 version 15.1.0 Release 15)

ETSI TS 126346 V 15.4.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Multimedia Broadcast/Multicast Service (MBMS) – Protocols and codecs (3GPP TS 26.346 version 15.4.0 Release 15)

ETSI TS 127007 V 15.6.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – 5G – AT command set for User Equipment (UE)  
(3GPP TS 27.007 version 15.6.0 Release 15)



- ETSI TS 129163 V 14.12.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks (3GPP TS 29.163 version 14.12.0 Release 14)
- ETSI TS 129163 V 15.7.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks (3GPP TS 29.163 version 15.7.0 Release 15)
- ETSI TS 129165 V 14.11.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Inter-IMS Network to Network Interface (NNI) (3GPP TS 29.165 version 14.11.0 Release 14)
- ETSI TS 129165 V 15.8.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Inter-IMS Network to Network Interface (NNI) (3GPP TS 29.165 version 15.8.0 Release 15)
- ETSI TS 129212 V 11.19.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Policy and Charging Control (PCC) – Reference points (3GPP TS 29.212 version 11.19.0 Release 11)
- ETSI TS 129212 V 12.14.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Policy and Charging Control (PCC) – Reference points (3GPP TS 29.212 version 12.14.0 Release 12)
- ETSI TS 129212 V 13.13.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Policy and Charging Control (PCC) – Reference points (3GPP TS 29.212 version 13.13.0 Release 13)
- ETSI TS 129212 V 14.10.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Policy and Charging Control (PCC) – Reference points (3GPP TS 29.212 version 14.10.0 Release 14)
- ETSI TS 129212 V 15.7.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Policy and Charging Control (PCC) – Reference points (3GPP TS 29.212 version 15.7.0 Release 15)
- ETSI TS 129219 V 11.8.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Policy and charging control: Spending limit reporting over Sy reference point (3GPP TS 29.219 version 11.8.0 Release 11)
- ETSI TS 129219 V 12.4.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Policy and charging control: Spending limit reporting over Sy reference point (3GPP TS 29.219 version 12.4.0 Release 12)
- ETSI TS 129219 V 13.5.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Policy and charging control: Spending limit reporting over Sy reference point (3GPP TS 29.219 version 13.5.0 Release 13)
- ETSI TS 129219 V 14.3.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Policy and charging control: Spending limit reporting over Sy reference point (3GPP TS 29.219 version 14.3.0 Release 14)
- ETSI TS 129219 V 15.2.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – Policy and charging control: Spending limit reporting over Sy reference point (3GPP TS 29.219 version 15.2.0 Release 15)
- ETSI TS 129292 V 14.7.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and MSC Server for IMS Centralized Services (ICS) (3GPP TS 29.292 version 14.7.0 Release 14)
- ETSI TS 129292 V 15.4.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and MSC Server for IMS Centralized Services (ICS) (3GPP TS 29.292 version 15.4.0 Release 15)
- ETSI TS 129468 V 14.5.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Group Communication System Enablers for LTE (GCSE LTE) – MB2 reference point – Stage 3 (3GPP TS 29.468 version 14.5.0 Release 14)
- ETSI TS 129468 V 15.6.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Group Communication System Enablers for LTE (GCSE LTE) – MB2 reference point – Stage 3 (3GPP TS 29.468 version 15.6.0 Release 15)
- ETSI TS 131121 V 14.6.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – UICC-terminal interface – Universal Subscriber Identity Module (USIM) application test specification (3GPP TS 31.121 version 14.6.0 Release 14)
- ETSI TS 131121 V 15.4.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – UICC-terminal interface – Universal Subscriber Identity Module (USIM) application test specification (3GPP TS 31.121 version 15.4.0 Release 15)
- ETSI TS 131124 V 15.5.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Mobile Equipment (ME) conformance test specification – Universal Subscriber Identity Module Application Toolkit (USAT) conformance test specification (3GPP TS 31.124 version 15.5.0 Release 15)
- ETSI TS 133107 V 15.6.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Digital cellular telecommunications system (Phase 2+) (GSM) – 3G security – Lawful interception architecture and functions (3GPP TS 33.107 version 15.6.0 Release 15)
- ETSI TS 133108 V 15.5.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Digital cellular telecommunications system (Phase 2+) (GSM) – 3G security – Handover interface for Lawful Interception (LI) (3GPP TS 33.108 version 15.5.0 Release 15)
- ETSI TS 133127 V 15.2.0:2019  
LTE – 5G – Digital cellular telecommunications system (Phase 2+) (GSM) – Universal Mobile Telecommunications System (UMTS) – Lawful Interception (LI) architecture and functions (3GPP TS 33.127 version 15.2.0 Release 15)
- ETSI TS 133128 V 15.1.0:2019  
LTE – 5G – Digital cellular telecommunications system (Phase 2+) (GSM) – Universal Mobile Telecommunications System (UMTS) – Security – Protocol and procedures for Lawful Interception (LI) – Stage 3 (3GPP TS 33.128 version 15.1.0 Release 15)
- ETSI TS 134108 V 15.1.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Common test environments for User Equipment (UE)  
– Conformance testing (3GPP TS 34.108 version 15.1.0 Release 15)
- ETSI TS 134121-1 V 15.3.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– User Equipment (UE) conformance specification – Radio transmission and reception (FDD) – Part 1: Conformance specification (3GPP TS 34.121-1 version 15.3.0 Release 15)
- ETSI TS 134123-1 V 15.3.0:2019  
Universal Mobile Telecommunications System (UMTS) – User Equipment (UE) conformance specification – Part 1: Protocol conformance specification (3GPP TS 34.123-1 version 15.3.0 Release 15)
- ETSI TS 134123-2 V 15.2.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– User Equipment (UE) conformance specification – Part 2: Implementation conformance statement (ICS) proforma specification (3GPP TS 34.123-2 version 15.2.0 Release 15)

- ETSI TS 134123-3 V 15.2.0:2019  
Universal Mobile Telecommunications System (UMTS) – User Equipment (UE) conformance specification – Part 3: Abstract test suite (ATS) (3GPP TS 34.123-3 version 15.2.0 Release 15)
- ETSI TS 134229-1 V 14.7.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE – Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) – User Equipment (UE) conformance specification – Part 1: Protocol conformance specification (3GPP TS 34.229-1 version 14.7.0 Release 14)
- ETSI TS 134229-1 V 15.0.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE – Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) – User Equipment (UE) conformance specification – Part 1: Protocol conformance specification (3GPP TS 34.229-1 version 15.0.0 Release 15)
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LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – User Equipment (UE) radio transmission and reception (3GPP TS 36.101 version 15.7.0 Release 15)
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- ETSI TS 136133 V 12.20.0:2019  
LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – Requirements for support of radio resource management (3GPP TS 36.133 version 12.20.0 Release 12)
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- ETSI TS 136133 V 15.7.0:2019  
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LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – User Equipment (UE) radio access capabilities (3GPP TS 36.306 version 15.5.0 Release 15)
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LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – Requirements on User Equipments (UEs) supporting a release-independent frequency band (3GPP TS 36.307 version 13.12.0 Release 13)
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– Medium Access Control (MAC) protocol specification  
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(E-UTRA) – Radio Link Control (RLC) protocol specification  
(3GPP TS 36.322 version 15.2.0 Release 15)
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– Packet Data Convergence Protocol (PDCP) specification  
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– Radio Resource Control (RRC) – Protocol specification  
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LTE – Evolved Universal Terrestrial Radio Access (E-UTRA)  
– Radio Resource Control (RRC) – Protocol specification  
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– Radio Resource Control (RRC) – Protocol specification  
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– LTE Positioning Protocol (LPP) (3GPP TS 36.355 version 15.4.0  
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environments for User Equipment (UE) conformance testing  
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transmission and reception – Part 1: Conformance testing  
(3GPP TS 36.521-1 version 15.5.0 Release 15)
- ETSI TS 136521-3 V 15.5.0:2019  
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(E-UTRA) – User Equipment (UE) conformance specification  
– Radio transmission and reception – Part 3: Radio  
Resource Management (RRM) conformance testing  
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LTE – Evolved Universal Terrestrial Radio Access (E-UTRA)  
and Evolved Packet Core (EPC) – User Equipment (UE)  
conformance specification – Part 1: Protocol conformance  
specification (3GPP TS 36.523-1 version 15.5.0 Release 15)
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LTE – Evolved Universal Terrestrial Radio Access  
(E-UTRA) and Evolved Packet Core (EPC) – User Equipment  
(UE) conformance specification – Part 3: Test suites  
(3GPP TS 36.523-3 version 15.3.0 Release 15)
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Digital cellular telecommunications system (Phase 2+)  
(GSM) – Universal Mobile Telecommunications System  
(UMTS) – LTE – 5G – NR, E-UTRA, UTRA and GSM/EDGE  
– Multi-Standard Radio (MSR) Base Station (BS) radio  
transmission and reception (3GPP TS 37.104 version 15.7.0  
Release 15)
- ETSI TS 137113 V 15.6.0:2019  
Digital cellular telecommunications system (Phase 2+) (GSM)  
– Universal Mobile Telecommunications System (UMTS)  
– LTE – NR, E-UTRA, UTRA and GSM/EDGE – Multi-Standard  
Radio (MSR) Base Station (BS) Electromagnetic Compatibility  
(EMC) (3GPP TS 37.113 version 15.6.0 Release 15)
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Digital cellular telecommunications system (Phase 2+)  
(GSM) – Universal Mobile Telecommunications System  
(UMTS) – LTE – 5G – NR, E-UTRA, UTRA and GSM/EDGE  
– Multi-Standard Radio (MSR) Base Station (BS) conformance  
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Digital cellular telecommunications system (Phase 2+)  
(GSM) – Universal Mobile Telecommunications System  
(UMTS) – LTE – 5G – NR, E-UTRA, UTRA and GSM/EDGE  
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(GSM) – Universal Mobile Telecommunications System  
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(GSM) – GSM/EDGE Radio subsystem link control  
(3GPP TS 45.008 version 13.10.0 Release 13)
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Digital cellular telecommunications system (Phase 2+)  
(GSM) – GSM/EDGE Radio subsystem link control  
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Digital cellular telecommunications system (Phase 2+) (GSM)  
– GSM/EDGE Radio subsystem link control (3GPP TS 45.008  
version 15.4.0 Release 15)
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Digital cellular telecommunications system (Phase 2+) (GSM)  
– Mobile Station (MS) conformance specification – Part 1:  
Conformance specification (3GPP TS 51.010-1 version 13.9.0  
Release 13)
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Digital cellular telecommunications system (Phase 2+) (GSM)  
– Mobile Station (MS) conformance specification – Part 2:  
Protocol Implementation Conformance Statement (PICS)  
proforma specification (3GPP TS 51.010-2 version 13.11.0  
Release 13)
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Digital cellular telecommunications system (Phase 2+)  
(GSM) – Mobile Station (MS) conformance specification  
– Part 5: Inter-Radio-Access-Technology (RAT)  
(GERAN / UTRAN) interaction Abstract Test Suite (ATS)  
(3GPP TS 51.010-5 version 10.19.0 Release 10)

## 33.070.99 Ostale pokretne službe

### Europska normizacija

#### ETSI

- ETSI TS 123280 V 15.7.0:2019  
LTE – Common functional architecture to support mission  
critical services – Stage 2 (3GPP TS 23.280 version 15.7.0  
Release 15)
- ETSI TS 123379 V 15.6.0:2019  
LTE – Functional architecture and information flows to  
support Mission Critical Push To Talk (MCPTT) – Stage 2  
(3GPP TS 23.379 version 15.6.0 Release 15)
- ETSI TS 124281 V 14.7.0:2019  
LTE – Mission Critical Video (MCVideo) signalling control  
– Protocol specification (3GPP TS 24.281 version 14.7.0 Release 14)

- ETSI TS 124281 V 15.5.0:2019  
LTE – Mission Critical Video (MCVideo) signalling control  
– Protocol specification (3GPP TS 24.281 version 15.5.0 Release 15)
- ETSI TS 124282 V 14.7.0:2019  
LTE – Mission Critical Data (MCData) signalling control  
– Protocol specification (3GPP TS 24.282 version 14.7.0 Release 14)
- ETSI TS 124282 V 15.6.0:2019  
LTE – Mission Critical Data (MCData) signalling control  
– Protocol specification (3GPP TS 24.282 version 15.6.0 Release 15)
- ETSI TS 124379 V 13.13.0:2019  
LTE – Mission Critical Push To Talk (MCPTT) call control  
– Protocol specification (3GPP TS 24.379 version 13.13.0 Release 13)
- ETSI TS 124379 V 14.10.0:2019  
LTE – Mission Critical Push To Talk (MCPTT) call control  
– Protocol specification (3GPP TS 24.379 version 14.10.0 Release 14)
- ETSI TS 124379 V 15.6.0:2019  
LTE – Mission Critical Push To Talk (MCPTT) call control  
– Protocol specification (3GPP TS 24.379 version 15.6.0 Release 15)
- ETSI TS 124501 V 15.4.0:2019  
5G – Non-Access-Stratum (NAS) protocol for 5G System (5GS) – Stage 3 (3GPP TS 24.501 version 15.4.0 Release 15)
- ETSI TS 124502 V 15.4.0:2019  
5G – Access to the 3GPP 5G Core Network (5GCN) via non-3GPP access networks (3GPP TS 24.502 version 15.4.0 Release 15)
- ETSI TS 124526 V 15.3.0:2019  
5G – User Equipment (UE) policies for 5G System (5GS) – Stage 3 (3GPP TS 24.526 version 15.3.0 Release 15)
- ETSI TS 124581 V 14.6.0:2019  
LTE – Mission Critical Video (MCVideo) media plane control  
– Protocol specification (3GPP TS 24.581 version 14.6.0 Release 14)
- ETSI TS 124581 V 15.4.0:2019  
LTE – Mission Critical Video (MCVideo) media plane control  
– Protocol specification (3GPP TS 24.581 version 15.4.0 Release 15)
- ETSI TS 129116 V 14.4.0:2019  
LTE – Representational state transfer over xMB reference point between content provider and BM-SC (3GPP TS 29.116 version 14.4.0 Release 14)
- ETSI TS 129116 V 15.1.0:2019  
LTE – Representational state transfer over xMB reference point between content provider and BM-SC (3GPP TS 29.116 version 15.1.0 Release 15)
- ETSI TS 129122 V 15.4.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE – 5G – T8 reference point for Northbound APIs (3GPP TS 29.122 version 15.4.0 Release 15)
- ETSI TS 129155 V 13.5.0:2019  
LTE – Traffic steering control – Representational State Transfer (REST) over St reference point (3GPP TS 29.155 version 13.5.0 Release 13)
- ETSI TS 129155 V 14.4.0:2019  
LTE – Traffic steering control – Representational State Transfer (REST) over St reference point (3GPP TS 29.155 version 14.4.0 Release 14)
- ETSI TS 129155 V 15.1.0:2019  
LTE – Traffic steering control – Representational State Transfer (REST) over St reference point (3GPP TS 29.155 version 15.1.0 Release 15)
- ETSI TS 129222 V 15.4.0:2019  
5G – Common API Framework for 3GPP Northbound APIs (3GPP TS 29.222 version 15.4.0 Release 15)
- ETSI TS 129250 V 14.3.0:2019  
LTE – Nu reference point between SCEF and PFDF for sponsored data connectivity (3GPP TS 29.250 version 14.3.0 Release 14)
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LTE – Nu reference point between SCEF and PFDF for sponsored data connectivity (3GPP TS 29.250 version 15.1.0 Release 15)
- ETSI TS 129251 V 14.4.0:2019  
LTE – Gw and Gwn reference point for sponsored data connectivity (3GPP TS 29.251 version 14.4.0 Release 14)
- ETSI TS 129251 V 15.2.0:2019  
LTE – Gw and Gwn reference point for sponsored data connectivity (3GPP TS 29.251 version 15.2.0 Release 15)
- ETSI TS 129413 V 15.2.0:2019  
5G – Application of the NG Application Protocol (NGAP) to non-3GPP access (3GPP TS 29.413 version 15.2.0 Release 15)
- ETSI TS 129507 V 15.4.0:2019  
5G – 5G System – Access and Mobility Policy Control Service – Stage 3 (3GPP TS 29.507 version 15.4.0 Release 15)
- ETSI TS 129508 V 15.4.0:2019  
5G – 5G System – Session Management Event Exposure Service – Stage 3 (3GPP TS 29.508 version 15.4.0 Release 15)
- ETSI TS 129512 V 15.4.0:2019  
5G – 5G System – Session Management Policy Control Service – Stage 3 (3GPP TS 29.512 version 15.4.0 Release 15)
- ETSI TS 129513 V 15.4.0:2019  
5G – 5G System – Policy and Charging Control signalling flows and QoS parameter mapping – Stage 3 (3GPP TS 29.513 version 15.4.0 Release 15)
- ETSI TS 129514 V 15.4.0:2019  
5G – 5G System – Policy Authorization Service – Stage 3 (3GPP TS 29.514 version 15.4.0 Release 15)
- ETSI TS 129561 V 15.2.0:2019  
5G – 5G System – Interworking between 5G Network and external Data Networks – Stage 3 (3GPP TS 29.561 version 15.2.0 Release 15)
- ETSI TS 136101 V 13.16.0:2019  
LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – User Equipment (UE) radio transmission and reception (3GPP TS 36.101 version 13.16.0 Release 13)
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LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – User Equipment (UE) radio transmission and reception (3GPP TS 36.101 version 15.7.0 Release 15)
- ETSI TS 136133 V 13.16.0:2019  
LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – Requirements for support of radio resource management (3GPP TS 36.133 version 13.16.0 Release 13)
- ETSI TS 136133 V 14.12.0:2019  
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- ETSI TS 136133 V 15.7.0:2019  
LTE – Evolved Universal Terrestrial Radio Access (E-UTRA) – Requirements for support of radio resource management (3GPP TS 36.133 version 15.7.0 Release 15)
- ETSI TS 136579-1 V 14.3.0:2019  
LTE – Mission Critical (MC) services over LTE – Part 1: Common test environment (3GPP TS 36.579-1 version 14.3.0 Release 14)
- ETSI TS 136579-2 V 14.3.0:2019  
LTE – Mission Critical (MC) services over LTE – Part 2: Mission Critical Push To Talk (MCPTT) User Equipment (UE) Protocol conformance specification (3GPP TS 36.579-2 version 14.3.0 Release 14)

- ETSI TS 136579-5 V 13.3.0:2019  
LTE – Mission Critical (MC) services over LTE – Part 5:  
Abstract test suite (ATS) (3GPP TS 36.579-5 version 13.3.0  
Release 13)
- ETSI TS 137105 V 15.6.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Active Antenna System (AAS) Base Station (BS)  
transmission and reception (3GPP TS 37.105 version 15.6.0  
Release 15)
- ETSI TS 137114 V 15.5.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– Active Antenna System (AAS) Base Station (BS) Electromagnetic  
Compatibility (EMC) (3GPP TS 37.114 version 15.5.0 Release 15)
- ETSI TS 137145-1 V 13.9.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Active Antenna System (AAS) Base Station (BS)  
conformance testing – Part 1: conducted conformance testing  
(3GPP TS 37.145-1 version 13.9.0 Release 13)
- ETSI TS 137145-1 V 14.7.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Active Antenna System (AAS) Base Station (BS)  
conformance testing – Part 1: conducted conformance testing  
(3GPP TS 37.145-1 version 14.7.0 Release 14)
- ETSI TS 137145-1 V 15.4.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Active Antenna System (AAS) Base Station (BS)  
conformance testing – Part 1: conducted conformance testing  
(3GPP TS 37.145-1 version 15.4.0 Release 15)
- ETSI TS 137145-2 V 13.10.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Active Antenna System (AAS) Base Station (BS)  
conformance testing – Part 2: radiated conformance testing  
(3GPP TS 37.145-2 version 13.10.0 Release 13)
- ETSI TS 137145-2 V 14.8.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Active Antenna System (AAS) Base Station (BS)  
conformance testing – Part 2: radiated conformance testing  
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- ETSI TS 137145-2 V 15.4.0:2019  
Universal Mobile Telecommunications System (UMTS)  
– LTE – Active Antenna System (AAS) Base Station (BS)  
conformance testing – Part 2: radiated conformance testing  
(3GPP TS 37.145-2 version 15.4.0 Release 15)
- ETSI TS 137340 V 15.6.0:2019  
Universal Mobile Telecommunications System (UMTS) – LTE  
– 5G – NR – Multi-connectivity – Overall description – Stage-2  
(3GPP TS 37.340 version 15.6.0 Release 15)
- ETSI TS 138101-1 V 15.6.0:2019  
5G – NR – User Equipment (UE) radio transmission  
and reception – Part 1: Range 1 Standalone  
(3GPP TS 38.101-1 version 15.6.0 Release 15)
- ETSI TS 138101-2 V 15.6.0:2019  
5G – NR – User Equipment (UE) radio transmission  
and reception – Part 2: Range 2 Standalone  
(3GPP TS 38.101-2 version 15.6.0 Release 15)
- ETSI TS 138101-3 V 15.6.0:2019  
5G – NR – User Equipment (UE) radio transmission and  
reception – Part 3: Range 1 and Range 2 Interworking  
operation with other radios (3GPP TS 38.101-3 version 15.6.0  
Release 15)
- ETSI TS 138101-4 V 15.2.0:2019  
5G – NR – User Equipment (UE) radio transmission  
and reception – Part 4: Performance requirements  
(3GPP TS 38.101-4 version 15.2.0 Release 15)
- ETSI TS 138104 V 15.6.0:2019  
5G – NR – Base Station (BS) radio transmission and  
reception (3GPP TS 38.104 version 15.6.0 Release 15)
- ETSI TS 138113 V 15.6.0:2019  
5G – NR – Base Station (BS) ElectroMagnetic Compatibility  
(EMC) (3GPP TS 38.113 version 15.6.0 Release 15)
- ETSI TS 138133 V 15.6.0:2019  
5G – NR – Requirements for support of radio resource  
management (3GPP TS 38.133 version 15.6.0 Release 15)
- ETSI TS 138141-1 V 15.2.0:2019  
5G – NR – Base Station (BS) conformance testing – Part 1:  
Conducted conformance testing (3GPP TS 38.141-1 version 15.2.0  
Release 15)
- ETSI TS 138141-2 V 15.2.0:2019  
5G – NR – Base Station (BS) conformance testing Part 2:  
Radiated conformance testing (3GPP TS 38.141-2 version 15.2.0  
Release 15)
- ETSI TS 138202 V 15.5.0:2019  
5G – NR – Services provided by the physical layer  
(3GPP TS 38.202 version 15.5.0 Release 15)
- ETSI TS 138211 V 15.6.0:2019  
5G – NR – Physical channels and modulation  
(3GPP TS 38.211 version 15.6.0 Release 15)
- ETSI TS 138212 V 15.6.0:2019  
5G – NR – Multiplexing and channel coding  
(3GPP TS 38.212 version 15.6.0 Release 15)
- ETSI TS 138213 V 15.6.0:2019  
5G – NR – Physical layer procedures for control  
(3GPP TS 38.213 version 15.6.0 Release 15)
- ETSI TS 138214 V 15.6.0:2019  
5G – NR – Physical layer procedures for data  
(3GPP TS 38.214 version 15.6.0 Release 15)
- ETSI TS 138215 V 15.5.0:2019  
5G – NR – Physical layer measurements  
(3GPP TS 38.215 version 15.5.0 Release 15)
- ETSI TS 138300 V 15.6.0:2019  
5G – NR – Overall description – Stage-2  
(3GPP TS 38.300 version 15.6.0 Release 15)
- ETSI TS 138304 V 15.4.0:2019  
5G – NR – User Equipment (UE) procedures in idle mode  
and in RRC Inactive state (3GPP TS 38.304 version 15.4.0  
Release 15)
- ETSI TS 138305 V 15.4.0:2019  
5G – NR Radio Access Network (NG-RAN) – Stage 2  
functional specification of User Equipment (UE) positioning in  
NG-RAN (3GPP TS 38.305 version 15.4.0 Release 15)
- ETSI TS 138306 V 15.6.0:2019  
5G – NR – User Equipment (UE) radio access capabilities  
(3GPP TS 38.306 version 15.6.0 Release 15)
- ETSI TS 138307 V 15.3.0:2019  
5G – NR – Requirements on User Equipments (UEs)  
supporting a release-independent frequency band  
(3GPP TS 38.307 version 15.3.0 Release 15)
- ETSI TS 138321 V 15.6.0:2019  
5G – NR – Medium Access Control (MAC) protocol  
specification (3GPP TS 38.321 version 15.6.0 Release 15)
- ETSI TS 138323 V 15.6.0:2019  
5G – NR – Packet Data Convergence Protocol (PDCP)  
specification (3GPP TS 38.323 version 15.6.0 Release 15)
- ETSI TS 138331 V 15.6.0:2019  
5G – NR – Radio Resource Control (RRC) – Protocol  
specification (3GPP TS 38.331 version 15.6.0 Release 15)
- ETSI TS 138401 V 15.6.0:2019  
5G – NR – Architecture description  
(3GPP TS 38.401 version 15.6.0 Release 15)
- ETSI TS 138412 V 15.2.0:2019  
5G – NR – NG-RAN – NG signalling transport  
(3GPP TS 38.412 version 15.2.0 Release 15)
- ETSI TS 138413 V 15.4.0:2019  
5G – NR – NG-RAN – NG Application Protocol (NGAP)  
(3GPP TS 38.413 version 15.4.0 Release 15)
- ETSI TS 138414 V 15.2.0:2019  
5G – NR – NG-RAN – NG data transport  
(3GPP TS 38.414 version 15.2.0 Release 15)
- ETSI TS 138423 V 15.4.0:2019  
5G – NR – NG-RAN – Xn Application Protocol (XnAP)  
(3GPP TS 38.423 version 15.4.0 Release 15)

ETSI TS 138424 V 15.2.0:2019  
5G – NG-RAN – Xn data transport (3GPP TS 38.424 version 15.2.0 Release 15)

ETSI TS 138425 V 15.6.0:2019  
5G – NG-RAN – NR user plane protocol (3GPP TS 38.425 version 15.6.0 Release 15)

ETSI TS 138460 V 15.4.0:2019  
5G – NG-RAN – E1 general aspects and principles (3GPP TS 38.460 version 15.4.0 Release 15)

ETSI TS 138462 V 15.4.0:2019  
5G – NG-RAN – E1 signalling transport (3GPP TS 38.462 version 15.4.0 Release 15)

ETSI TS 138463 V 15.4.0:2019  
5G – NG-RAN – E1 Application Protocol (E1AP) (3GPP TS 38.463 version 15.4.0 Release 15)

ETSI TS 138470 V 15.6.0:2019  
5G – NG-RAN – F1 general aspects and principles (3GPP TS 38.470 version 15.6.0 Release 15)

ETSI TS 138472 V 15.4.0:2019  
5G – NG-RAN – F1 signalling transport (3GPP TS 38.472 version 15.4.0 Release 15)

ETSI TS 138473 V 15.6.0:2019  
5G – NG-RAN – F1 Application Protocol (F1AP) (3GPP TS 38.473 version 15.6.0 Release 15)

ETSI TS 138508-1 V 15.4.0:2019  
5G – 5GS – User Equipment (UE) conformance specification – Part 1: Common test environment (3GPP TS 38.508-1 version 15.4.0 Release 15)

ETSI TS 138508-2 V 15.4.0:2019  
5G – 5GS – User Equipment (UE) conformance specification – Part 2: Common Implementation Conformance Statement (ICS) proforma (3GPP TS 38.508-2 version 15.4.0 Release 15)

ETSI TS 138509 V 15.4.0:2019  
5G – 5GS – Special conformance testing functions for User Equipment (UE) (3GPP TS 38.509 version 15.4.0 Release 15)

ETSI TS 138521-1 V 15.3.0:2019  
5G – NR – User Equipment (UE) conformance specification – Radio transmission and reception – Part 1: Range 1 standalone (3GPP TS 38.521-1 version 15.3.0 Release 15)

ETSI TS 138521-2 V 15.3.0:2019  
5G – NR – User Equipment (UE) conformance specification – Radio transmission and reception – Part 2: Range 2 standalone (3GPP TS 38.521-2 version 15.3.0 Release 15)

ETSI TS 138521-3 V 15.3.0:2019  
5G – NR – User Equipment (UE) conformance specification – Radio transmission and reception – Part 3: Range 1 and Range 2 Interworking operation with other radios (3GPP TS 38.521-3 version 15.3.0 Release 15)

ETSI TS 138521-4 V 15.1.0:2019  
5G – NR – User Equipment (UE) conformance specification – Radio transmission and reception – Part 4: Performance (3GPP TS 38.521-4 version 15.1.0 Release 15)

ETSI TS 138522 V 15.3.0:2019  
5G – NR – User Equipment (UE) conformance specification – Applicability of radio transmission, radio reception and radio resource management test cases (3GPP TS 38.522 version 15.3.0 Release 15)

ETSI TS 138523-1 V 15.4.0:2019  
5G – 5GS – User Equipment (UE) conformance specification – Part 1: Protocol (3GPP TS 38.523-1 version 15.4.0 Release 15)

ETSI TS 138523-2 V 15.4.0:2019  
5G – 5GS – User Equipment (UE) conformance specification – Part 2: Applicability of protocol test cases (3GPP TS 38.523-2 version 15.4.0 Release 15)

ETSI TS 138523-3 V 15.4.0:2019  
5G – 5GS – User Equipment (UE) conformance specification – Part 3: Protocol Test Suites (3GPP TS 38.523-3 version 15.4.0 Release 15)

ETSI TS 138533 V 15.1.0:2019  
5G – NR – User Equipment (UE) conformance specification – Radio Resource Management (RRM) (3GPP TS 38.533 version 15.1.0 Release 15)

ETSI TR 138903 V 15.3.0:2019  
5G – NR – Derivation of test tolerances and measurement uncertainty for User Equipment (UE) conformance test cases (3GPP TR 38.903 version 15.3.0 Release 15)

ETSI TR 138905 V 15.3.0:2019  
5G – NR – Derivation of test points for radio transmission and reception User Equipment (UE) conformance test cases (3GPP TR 38.905 version 15.3.0 Release 15)

ETSI GS MEC 005 V 2.1.1:2019  
Multi-access Edge Computing (MEC) – Proof of Concept Framework

ETSI GS MEC 029 V 2.1.1:2019  
Multi-access Edge Computing (MEC) – Fixed Access Information API

### 33.100.10 Zračenje

#### Europska normizacija CENELEC

EN 50697:2019  
Information technology – Measurement of end-to-end (E2E) links

EN IEC 55016-1-1:2019  
Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus (CISPR 16-1-1:2019)

#### ETSI

EN 300328 V 2.2.2:2019  
Wideband transmission systems – Data transmission equipment operating in the 2,4 GHz band – Harmonised Standard for access to radio spectrum

ETSI TR 103088 V 2.1.1:2019  
Electromagnetic compatibility and Radio spectrum Matters (ERM) – Using the EN 301489 series of EMC standards

ETSI TR 103149 V 1.2.1:2019  
System Reference document (SRdoc) – DECT operating in the 1900 MHz – 1920 MHz band

### 33.100.20 Otpornost

#### Europska normizacija CENELEC

EN IEC 61000-4-18:2019  
Electromagnetic compatibility (EMC) – Part 4-18: Testing and measurement techniques – Damped oscillatory wave immunity test (IEC 61000-4-18:2019)

### 33.120.30 RF konektori

#### Međunarodna normizacija IEC

IEC 61169-24:2019  
Radio-frequency connectors – Part 24: Sectional specification – Radio frequency coaxial connectors with screw coupling, typically for use in 75 Ω cable networks (type F)

### 33.160.30 Audiosustavi

#### Međunarodna normizacija IEC

IEC 62760 AMD 1:2019  
Audio reproduction method for normalized loudness level; Amendment 1

IEC 62760 Edition 1.1:2019  
Audio reproduction method for normalized loudness level

### 33.180.01 Svjetlovodni sustavi općenito

#### Međunarodna normizacija IEC

IEC/TR 61282-5:2019  
Fibre optic communication system design guidelines – Part 5:  
Accommodation and compensation of chromatic dispersion

IEC/TR 61282-14:2019  
Fibre optic communication system design guidelines  
– Part 14: Determination of the uncertainties of attenuation  
measurements in fibre plants

### 33.180.10 Svjetlovodna vlakna i kabeli

#### Europska normizacija CENELEC

EN IEC 60793-2-10:2019  
Optical fibres – Part 2-10: Product specifications  
– Sectional specification for category A1 multimode fibres  
(IEC 60793-2-10:2019)

### 33.180.20 Svjetlovodne vezne naprave

#### Međunarodna normizacija IEC

IEC 61300-3-54:2019  
Fibre optic interconnecting devices and passive components  
– Basic test and measurement procedures – Part 3-54:  
Examinations and measurements – Angular misalignment  
between ferrule bore axis and ferrule axis for cylindrical  
ferrules

### 33.180.30 Optička pojačala

#### Europska normizacija CENELEC

EN IEC 62148-19:2019  
Fibre optic active components and devices – Package and  
interface standards – Part 19: Photonic chip scale package  
(IEC 62148-19:2019)

### 33.180.99 Ostala svjetlovodna oprema

#### Europska normizacija CENELEC

EN IEC 62129-3:2019  
Calibration of wavelength/optical frequency measurement  
instruments – Part 3: Optical frequency meters internally  
referenced to a frequency comb (IEC 62129-3:2019)

### 33.200 Daljinsko upravljanje. Daljinsko mjerjenje

#### Europska normizacija ETSI

ETSI TR 103549 V 1.1.1:2019  
SmartM2M – Guidelines for consolidating SAREF with new  
reference ontology patterns, based on the experience from  
the ITEA SEAS project

ETSI TR 103608 V 1.1.1:2019  
SmartM2M – SAREF publication framework reinforcing the  
engagement of its community of users

### 35.020 Informacijska tehnologija (IT) općenito

#### Europska normizacija CENELEC

CLC/TR 50600-99-1:2019  
Information technology – Data centre facilities and  
infrastructures – Part 99-1: Recommended practices for  
energy management

CLC/TR 50600-99-2:2019  
Information technology – Data centre facilities and  
infrastructures – Part 99-2: Recommended practices for  
environmental sustainability

#### Međunarodna normizacija ISO/IEC

ISO/IEC TR 20000-7:2019  
Information technology – Service management  
– Part 7: Guidance on the integration and correlation  
of ISO/IEC 20000-1:2018 to ISO 9001:2015 and  
ISO/IEC 27001:2013

### 35.030 Informatička sigurnost

#### Međunarodna normizacija ISO/IEC

ISO/IEC 29192-7:2019  
Information security – Lightweight cryptography – Part 7:  
Broadcast authentication protocols

### 35.040.30 Kodiranje grafičkih i fotografskih informacija

#### Međunarodna normizacija ISO/IEC

ISO/IEC 19566-5:2019  
Information technologies – JPEG systems – Part 5: JPEG  
universal metadata box format (JUMBF)

ISO/IEC 19566-6:2019  
Information technologies – JPEG systems – Part 6: JPEG  
360

### 35.040.40 Kodiranje audioinformacija, videoinformacija, multimedijjskih i hipermedijjskih informacija

#### Europska normizacija ETSI

ETSI GR ARF 002 V 1.1.1:2019  
Augmented Reality Framework (ARF) Industrial use cases for  
AR applications and services

#### Međunarodna normizacija ISO/IEC

ISO/IEC 15938-15:2019  
Information technology – Multimedia content description  
interface – Part 15: Compact descriptors for video analysis

ISO/IEC 23001-13:2019  
Information technology – MPEG systems technologies  
– Part 13: Media orchestration

ISO/IEC 23091-2:2019  
Information technology – Coding-independent code points  
– Part 2: Video

## 35.040.50 Tehnike automatskog prepoznavanja i preuzimanja podataka

### Međunarodna normizacija ISO/IEC

ISO/IEC TR 19583-1:2019  
Information technology – Concepts and usage of metadata  
– Part 1: Metadata concepts

## 35.040.99 Ostale norme koje se odnose na kodiranje informacija

### Međunarodna normizacija ISO

ISO/IEC 23092-1:2019  
Information technology – Genomic information representation  
– Part 1: Transport and storage of genomic

## 35.080 Softver (programska podrška)

### Europska normizacija ETSI

ETSI GS CIM 006 V 1.1.1:2019  
Context Information Management (CIM) – Information Model (MOD0)

### Međunarodna normizacija ISO/IEC

ISO/IEC/IEEE 15289:2019  
Systems and software engineering – Content of life-cycle information items (documentation)

ISO/IEC/IEEE 21839:2019  
Systems and software engineering – System of systems (SoS) considerations in life cycle stages of a system

ISO/IEC/IEEE 21841:2019  
Systems and software engineering – Taxonomy of systems of systems

ISO/IEC 25020:2019  
Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) – Quality measurement framework

ISO/IEC TR 33018:2019  
Information technology – Process assessment – Guidance for assessor competency

ISO/IEC/IEEE 42020:2019  
Software, systems and enterprise – Architecture processes

ISO/IEC/IEEE 42030:2019  
Software, systems and enterprise – Architecture evaluation framework

## 35.100.70 Sloj primjene

### Međunarodna normizacija IEC

IEC 62734 AMD 1:2019  
Industrial networks – Wireless communication network and communication profiles – ISA 100.11a; Amendment 1

IEC 62734 Edition 1.1:2019  
Industrial networks – Wireless communication network and communication profiles – ISA 100.11a

## 35.110 Umrežavanje

### Europska normizacija CENELEC

CLC/TR 50600-99-1:2019  
Information technology – Data centre facilities and infrastructures – Part 99-1: Recommended practices for energy management

CLC/TR 50600-99-2:2019  
Information technology – Data centre facilities and infrastructures – Part 99-2: Recommended practices for environmental sustainability

EN 50697:2019  
Information technology – Measurement of end-to-end (E2E) links

### ETSI

ETSI GS NFV-IFA 026 V 3.2.1:2019  
Network Functions Virtualisation (NFV) Release 3 – Management and Orchestration – Architecture enhancement for Security Management Specification

### Međunarodna normizacija ISO/IEC

ISO/IEC/IEEE 8802-1:2019  
Telecommunications and information exchange between information technology systems – Requirements for local and metropolitan area networks – Part 1CM: Time-sensitive networking for fronthaul

IEC 62734 AMD 1:2019  
Industrial networks – Wireless communication network and communication profiles – ISA 100.11a; Amendment 1

IEC 62734 Edition 1.1:2019  
Industrial networks – Wireless communication network and communication profiles – ISA 100.11a

## 35.140 Računalna grafika

### Europska normizacija ETSI

ETSI GR ARF 002 V 1.1.1:2019  
Augmented Reality Framework (ARF) Industrial use cases for AR applications and services

## 35.160 Mikroprocesorski sustavi

### Europska normizacija CEN

CLC/TR 50600-99-1:2019  
Information technology – Data centre facilities and infrastructures – Part 99-1: Recommended practices for energy management

CLC/TR 50600-99-2:2019  
Information technology – Data centre facilities and infrastructures – Part 99-2: Recommended practices for environmental sustainability

## 35.200 Sučelna i spojna oprema

### Međunarodna normizacija ISO/IEC

ISO/IEC TR 11801-9907:2019  
Information technology – Generic cabling systems for customer premises – Part 9907: Specifications for direct attach cabling



## 35.240.01 Primjene informacijske tehnologije općenito

### Europska normizacija ETSI

ETSI GS CIM 006 V 1.1.1:2019  
Context Information Management (CIM) – Information Model (MOD0)

## 35.240.15 Identifikacijske kartice i pripadajuće naprave

### Europska normizacija ETSI

ETSI TS 102221 V 14.2.0:2019  
Smart Cards – UICC-Terminal interface – Physical and logical characteristics (Release 14)

ETSI TS 102221 V 15.3.0:2019  
Smart Cards – UICC-Terminal interface – Physical and logical characteristics (Release 15)

ETSI TS 102221 V 16.0.0:2019  
Smart Cards – UICC-Terminal interface – Physical and logical characteristics (Release 16)

ETSI TS 102223 V 13.4.0:2019  
Smart Cards – Card Application Toolkit (CAT) (Release 13)

ETSI TS 102223 V 14.3.0:2019  
Smart Cards – Card Application Toolkit (CAT) (Release 14)

ETSI TS 102223 V 15.3.0:2019  
Smart Cards – Card Application Toolkit (CAT) (Release 15)

## 35.240.30 Primjene informacijske tehnologije u obavješćivanju, dokumentaciji i izdavaštvu

### Europska normizacija CENELEC

EN IEC 61131-10:2019  
Programmable controllers – Part 10: PLC open XML exchange format (IEC 61131-10:2019)

### Međunarodna normizacija ISO

ISO 22550:2019  
Document management – AFP interchange for PDF

## 35.240.50 Primjene informacijske tehnologije u industriji

### Europska normizacija CENELEC

EN IEC 61131-10:2019  
Programmable controllers – Part 10: PLC open XML exchange format (IEC 61131-10:2019)

CLC IEC/TR 61511-0:2019  
Functional safety – Safety instrumented systems for the process industry sector – Part 0: Functional safety for the process industry and IEC 61511 (IEC/TR 61511-0:2018)

### Međunarodna normizacija IEC

IEC 62734 AMD 1:2019  
Industrial networks – Wireless communication network and communication profiles – ISA 100.11a; Amendment 1

IEC 62734 Edition 1.1:2019  
Industrial networks – Wireless communication network and communication profiles – ISA 100.11a

## 35.240.60 Primjene informacijske tehnologije u prijevozu i trgovini

### Međunarodna normizacija ISO

ISO 17573-1:2019  
Electronic fee collection – System architecture for vehicle-related tolling – Part 1: Reference model

ISO 21219-2:2019  
Intelligent transport systems – Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) – Part 2: UML modelling rules (TPEG2-UMR)

ISO 21219-3:2019  
Intelligent transport systems – Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) – Part 3: UML to binary conversion rules (TPEG2-UBCR)

ISO 21219-4:2019  
Intelligent transport systems – Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) – Part 4: UML to XML conversion rules

ISO 21219-5:2019  
Intelligent transport systems – Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) – Part 5: Service framework (TPEG2-SFW)

ISO 21219-6:2019  
Intelligent transport systems – Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) – Part 6: Message management container (TPEG2-MMC)

ISO 21219-18:2019  
Intelligent transport systems – Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) – Part 18: Traffic flow and prediction application (TPEG2-TFP)

ISO/TR 21735:2019  
Intelligent transport systems – Framework architecture for plug and play (PnP) functionality in vehicles utilizing nomadic devices

## 35.240.70 Primjene informacijske tehnologije u znanosti

### Međunarodna normizacija ISO

ISO 19162:2019  
Geographic information – Well-known text representation of coordinate reference systems

## 35.240.80 Primjene informacijske tehnologije u tehnologiji zaštite zdravlja

### Međunarodna normizacija ISO

ISO 12381:2019  
Health informatics – Explicit time-related expressions for healthcare-specific problems

ISO/TR 14872:2019  
Health informatics – Identification of medicinal products – Core principles for maintenance of identifiers and terms

## 37.020 Optička oprema

### Međunarodna normizacija ISO

ISO/TR 14999-2:2019  
Optics and photonics – Interferometric measurement of optical elements and optical systems – Part 2: Measurement and evaluation techniques

### 37.040.10 Fotografska oprema. Projektori

#### Međunarodna normizacija ISO

ISO 20954-1:2019  
Digital cameras – Measurement method for image stabilization performance – Part 1: Optical systems

### 37.040.20 Fotografski papir, filmovi i kazete

#### Međunarodna normizacija ISO

ISO 18949:2019  
Imaging materials – Reflection colour photographic prints – Method for testing stability under low humidity conditions

### 37.060.20 Kinematografski filmovi. Kazete

#### Međunarodna normizacija ISO

ISO 4241:2019  
Cinematography – Projection film leader (time-based), trailer and cue marks – Specifications

### 37.100.99 Ostale norme koje se odnose na grafičku tehnologiju

#### Međunarodna normizacija ISO

ISO 22550:2019  
Document management – AFP interchange for PDF

### 39.060 Nakit

#### Međunarodna normizacija ISO

ISO 11494:2019  
Jewellery and precious metals – Determination of platinum in platinum alloys – ICP-OES method using an internal standard element

### 43.020 Cestovna vozila općenito

#### Međunarodna normizacija ISO

ISO 5130:2019  
Acoustics – Measurements of sound pressure level emitted by stationary road vehicles

### 43.040.10 Električna i elektronička oprema

#### Međunarodna normizacija ISO

ISO 16505:2019  
Road vehicles – Ergonomic and performance aspects of Camera Monitor Systems – Requirements and test procedures

ISO 19072-1:2019  
Road vehicles – Connection interface for pyrotechnic devices, two-way and three-way connections – Part 1: Pocket interface definition

### 43.040.15 Informatika vozila. Računalni sustavi u vozilu

#### Međunarodna normizacija ISO

ISO/TR 21735:2019  
Intelligent transport systems – Framework architecture for plug and play (PnP) functionality in vehicles utilizing nomadic devices

### 43.060.40 Sustavi goriva

#### Međunarodna normizacija ISO

ISO 22241-4:2019  
Diesel engines – NOx reduction agent AUS 32 – Part 4: Refilling interface

### 43.120 Električna cestovna vozila

#### Europska normizacija CENELEC

EN IEC 61851-1:2019  
Electric vehicle conductive charging system – Part 1: General requirements (IEC 61851-1:2017)

### 43.140 Motocikli i mopedi

#### Međunarodna normizacija ISO

ISO 21755-1:2019  
Motorcycles – Measurement method for evaporative emissions – Part 1: SHED test procedure

### 43.160 Vozila za posebne namjene

#### Međunarodna normizacija ISO

ISO 8437-1:2019  
Snow throwers – Safety requirements and test procedures – Part 1: Terminology and common tests

ISO 8437-2:2019  
Snow throwers – Safety requirements and test procedures – Part 2: Pedestrian-controlled snow throwers

ISO 8437-3:2019  
Snow throwers – Safety requirements and test procedures – Part 3: Ride-on snow throwers

ISO 8437-4:2019  
Snow throwers – Safety requirements and test procedures – Part 4: Additional national and regional requirements

### 47.020.70 Oprema za navigaciju i upravljanje

#### Međunarodna normizacija ISO

ISO 25862:2019  
Ships and marine technology – Marine magnetic compasses, binnacles and azimuth reading devices

#### IEC

IEC 61097-6 AMD 2:2019  
Global maritime distress and safety system (GMDSS) – Part 6: Narrowband direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships (NAVTEX); Amendment 2

IEC 61097-6 Edition 2.2:2019  
Global maritime distress and safety system (GMDSS) – Part 6: Narrowband direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships (NAVTEX)

IEC 61097-16:2019  
Global maritime distress and safety system (GMDSS)  
– Part 16: Ship earth stations operating in mobile-satellite  
systems recognized for use in the GMDSS – Operational and  
performance requirements, methods of testing and required  
test results

#### **47.020.99 Ostale norme koje se odnose na brodogradnju i pomorske konstrukcije**

##### **Međunarodna normizacija ISO**

ISO 15738:2019  
Ships and marine technology – Maritime safety – Gas inflation  
systems for inflatable life-saving appliances

ISO 21593:2019  
Ships and marine technology – Technical requirements for  
dry-disconnect/connect couplings for bunkering liquefied  
natural gas

#### **49.030.30 Matice**

##### **Europska normizacija CEN**

EN 3299:2019  
Aerospace series – Shaft-nuts and threaded rings,  
self-locking, right- or left-hand MJ threads, in heat  
resisting steel FE-PA2601 (A286), silver plated – Technical  
specification

#### **49.030.50 Podložne pločice i ostali sigurnosni elementi**

##### **Europska normizacija CEN**

EN 3299:2019  
Aerospace series – Shaft-nuts and threaded rings,  
self-locking, right- or left-hand MJ threads, in heat  
resisting steel FE-PA2601 (A286), silver plated – Technical  
specification

#### **49.060 Zrakoplovna električna oprema i sustavi**

##### **Međunarodna normizacija IEC**

IEC/TR 63238-1:2019  
Process management for avionics – Electronics design  
– Part 1: Electrical signal properties, naming conventions and  
interface control document (ICD)

#### **49.090 Oprema i instrumenti u zrakoplovu**

##### **Međunarodna normizacija IEC**

IEC 62668-2:2019  
Process management for avionics – Counterfeit prevention  
– Part 2: Managing electronic components from  
non-franchised sources

IEC/TR 63238-1:2019  
Process management for avionics – Electronics design  
– Part 1: Electrical signal properties, naming conventions and  
interface control document (ICD)

#### **49.140 Svemirski sustavi i operacije**

##### **Europska normizacija CEN**

EN 16602-70-60:2019  
Space product assurance – Qualification and Procurement of  
printed circuit boards

##### **Međunarodna normizacija ISO**

ISO 24113:2019  
Space systems – Space debris mitigation requirements

#### **53.100 Strojevi za zemljane radove**

##### **Međunarodna normizacija ISO**

ISO 17757:2019  
Earth-moving machinery and mining – Autonomous and  
semi-autonomous machine system safety

#### **55.020 Ambalaža, pakiranje i distribucija robe općenito**

##### **Međunarodna normizacija ISO**

ISO 22015:2019  
Packaging – Accessible design – Handling and manipulation

#### **55.180.10 Kontejneri opće namjene**

##### **Europska normizacija CEN**

EN 17066-1:2019  
Insulated means of transport for temperature sensitive goods  
– Requirements and testing – Part 1: Container

#### **59.060.01 Tekstilna vlakna općenito**

##### **Europska normizacija CEN**

EN ISO 1833-12:2019  
Textiles – Quantitative chemical analysis – Part 12: Mixtures  
of acrylic, certain modacrylics, certain chlorofibres, certain  
elastane fibres with certain other fibres (method using  
dimethylformamide) (ISO 1833-12:2019)

EN ISO 1833-16:2019  
Textiles – Quantitative chemical analysis – Part 16: Mixtures  
of polypropylene fibres with certain other fibres (method using  
xylene) (ISO 1833-16:2019)

#### **59.080.50 Užad**

##### **Međunarodna normizacija ISO**

ISO 2307:2019  
Fibre ropes – Determination of certain physical and mechanical  
properties

ISO 9554:2019  
Fibre ropes – General specifications

#### **59.080.70 Geotekstili**

##### **Međunarodna normizacija ISO**

ISO 13437:2019  
Geosynthetics – Installing and retrieving samples in the field  
for durability assessment

#### **59.140.01 Kožarska tehnologija općenito**

##### **Međunarodna normizacija ISO**

ISO 15115:2019  
Leather – Vocabulary

## 59.140.30 Koža i krzno

### Europska normizacija CEN

- EN ISO 18218-2:2019  
Leather – Determination of ethoxylated alkylphenols – Part 2:  
Indirect method (ISO 18218-2:2019)

## 61.060 Obuća

### Međunarodna normizacija ISO

- ISO 17700:2019  
Footwear – Test methods for upper components and insoles  
– Colour fastness to rubbing and bleeding

## 65.020.20 Uzgoj biljaka

### Međunarodna normizacija ISO

- ISO 23016-2:2019  
Fine bubble technology – Agricultural applications – Part 2:  
Test method for evaluating the promotion of the germination  
of barley seeds

## 65.120 Hrana za životinje

### Europska normizacija CEN

- EN 17294:2019  
Animal feeding stuffs – Methods of sampling and analysis  
– Determination of organic acids by Ion Chromatography with  
Conductivity Detection (IC-CD)
- EN 17298:2019  
Animal feeding stuffs – Methods of sampling and analysis  
– Determination of benzoic and sorbic acid by High  
Performance Liquid Chromatography (HPLC)
- EN 17299:2019  
Animal feeding stuffs – Methods of sampling and analysis  
– Screening and determination of authorized coccidiostats  
at additive and 1 % and 3 % cross-contamination level,  
and of non-registered coccidiostats and of one antibiotic at  
sub-additive levels, in compound feed with High  
Performance Liquid Chromatography – Tandem Mass  
Spectrometry detection (LC-MS/MS)

## 65.160 Duhan, duhanski proizvodi i odgovarajuća oprema

### Međunarodna normizacija ISO

- ISO 2965:2019  
Materials used as cigarette papers, filter plug wrap and  
filter joining paper, including materials having a discrete or  
oriented permeable zone and materials with bands of differing  
permeability – Determination of air permeability
- ISO 8454 AMD 2:2019  
Cigarettes – Determination of carbon monoxide in the vapour  
phase of cigarette smoke – NDIR method; Amendment 2
- ISO 10362-1:2019  
Cigarettes – Determination of water in total particulate matter  
from the mainstream smoke – Part 1: Gas-chromatographic  
method
- ISO 20193:2019  
Tobacco and tobacco products – Determination of the width of  
the strands of cut tobacco

## 67.200.20 Uljarice

### Međunarodna normizacija ISO

- ISO 17059:2019  
Oilseeds – Extraction of oil and preparation of methyl esters  
of triglyceride fatty acids for analysis by gas chromatography  
(rapid method)

## 71.040.40 Kemijska analiza

### Europska normizacija CEN

- EN 17294:2019  
Animal feeding stuffs – Methods of sampling and analysis  
– Determination of organic acids by Ion Chromatography with  
Conductivity Detection (IC-CD)
- EN 17298:2019  
Animal feeding stuffs – Methods of sampling and analysis  
– Determination of benzoic and sorbic acid by High  
Performance Liquid Chromatography (HPLC)

### Međunarodna normizacija ISO

- ISO 19229:2019  
Gas analysis – Purity analysis and the treatment of purity data

## 71.040.50 Fizikalnokemijske metode analize

### Europska normizacija CEN

- EN 17299:2019  
Animal feeding stuffs – Methods of sampling and analysis  
– Screening and determination of authorized coccidiostats  
at additive and 1 % and 3 % cross-contamination level,  
and of non-registered coccidiostats and of one antibiotic at  
sub-additive levels, in compound feed with High  
Performance Liquid Chromatography – Tandem Mass  
Spectrometry detection (LC-MS/MS)

## 71.100.10 Materijali za proizvodnju aluminija

### Međunarodna normizacija ISO

- ISO 10143:2019  
Carbonaceous materials for the production of aluminium  
– Calcined coke for electrodes – Determination of the electrical  
resistivity of granules
- ISO 23028:2019  
Aluminium oxide primarily used for the production of aluminium  
– Preparation and storage of test samples

## 71.100.35 Kemikalije za dezinfekciju u industriji i kućanstvima

### Europska normizacija CEN

- EN 13697:2015+A1:2019  
Chemical disinfectants and antiseptics – Quantitative  
non-porous surface test for the evaluation of bactericidal  
and/or fungicidal activity of chemical disinfectants used in  
food, industrial, domestic and institutional areas – Test method  
and requirements without mechanical action (phase 2, step 2)

## 71.100.40 Površinski aktivne tvari

### Međunarodna normizacija ISO

- ISO 21264:2019  
Surface active agents – Detergents – Determination of  
alkylphenol ethoxylates

## 73.060.99 Ostale rude crnih metala

### Međunarodna normizacija ISO

ISO 19976-1:2019  
Copper, lead and zinc sulfide concentrates – Determination of cadmium – Part 1: Flame atomic absorption spectrometric method

ISO 19976-2:2019  
Copper, lead and zinc sulfide concentrates – Determination of cadmium – Part 2: Acid digestion and inductively coupled plasma atomic emission spectrometric method

## 75.020 Crpenje i obrada nafte i prirodnoga plina

### Međunarodna normizacija ISO

ISO 20074:2019  
Petroleum and natural gas industry – Pipeline transportation systems – Geological hazard risk management for onshore pipeline

## 75.080 Naftni proizvodi općenito

### Međunarodna normizacija ISO

ISO 3924:2019  
Petroleum products – Determination of boiling range distribution – Gas chromatography method

ISO 21493:2019  
Petroleum products – Determination of turbidity point and aniline point equivalent

## 75.160.10 Kruta goriva

### Međunarodna normizacija ISO

ISO 925:2019  
Solid mineral fuels – Determination of carbonate carbon content – Gravimetric method

## 75.180.10 Oprema za iskorištavanje i vađenje

### Europska normizacija CEN

EN ISO 19900:2019  
Petroleum and natural gas industries – General requirements for offshore structures (ISO 19900:2019)

### Međunarodna normizacija ISO

ISO 13679:2019  
Petroleum and natural gas industries – Procedures for testing casing and tubing connections

ISO 19901-9:2019  
Petroleum and natural gas industries – Specific requirements for offshore structures – Part 9: Structural integrity management

ISO 19906:2019  
Petroleum and natural gas industries – Arctic offshore structures

## 75.200 Oprema za rukovanje naftnim proizvodima i prirodnim plinom

### Međunarodna normizacija ISO

ISO 13679:2019  
Petroleum and natural gas industries – Procedures for testing casing and tubing connections

## 77.040.10 Mehaničko ispitivanje metala

### Međunarodna normizacija ISO

ISO 20064:2019  
Metallic materials – Steel – Method of test for the determination of brittle crack arrest toughness, K<sub>IC</sub>

## 77.080.10 Željezni lijevovi

### Europska normizacija CEN

EN ISO 945-1:2019  
Microstructure of cast irons – Part 1: Graphite classification by visual analysis (ISO 945-1:2019)

### Međunarodna normizacija ISO

ISO 185:2019  
Grey cast irons – Classification

## 77.080.20 Čelici

### Međunarodna normizacija ISO

ISO 6306:2019  
Chemical analysis of steel – Order of listing elements in steel standards

## 77.120.20 Magnezij i magnezijeve legure

### Međunarodna normizacija ISO

ISO 20260:2019  
Magnesium and magnesium alloys – Determination of mercury

## 77.140.50 Proizvodi i poluproizvodi od plosnatog čelika

### Međunarodna normizacija ISO

ISO 4960:2019  
Steel strip, cold-reduced with a mass fraction of carbon over 0,25 %

ISO 6930:2019  
High yield strength steel plates and wide flats for cold forming – Delivery conditions

## 77.140.75 Čelične cijevi i čelične cijevi za posebnu namjenu

### Međunarodna normizacija ISO

ISO 21053:2019  
Life cycle analysis and recycling of ductile iron pipes for water applications

## 77.160 Metalurgija praha

### Međunarodna normizacija ISO

ISO 3252:2019  
Powder metallurgy – Vocabulary

## 79.080 Drveni poluproizvodi

### Međunarodna normizacija ISO

ISO 5323:2019  
Wood flooring and parquet – Vocabulary

## 79.100 Pluto i proizvodi od pluta

### Međunarodna normizacija ISO

ISO 2386:2019  
Packed cork – Virgin cork, raw reproduction cork, burnt cork, boiled reproduction cork and raw cork waste – Determination of moisture content

## 81.060.30 Tehnička keramika

### Međunarodna normizacija ISO

ISO 20504:2019  
Fine ceramics (advanced ceramics, advanced technical ceramics) – Mechanical properties of ceramic composites at room temperature – Determination of compressive properties

ISO 27447:2019  
Fine ceramics (advanced ceramics, advanced technical ceramics) – Test method for antibacterial activity of semiconducting photocatalytic materials

## 83.040.10 Lateks i sirova guma

### Međunarodna normizacija ISO

ISO 1656:2019  
Rubber, raw natural, and rubber latex, natural – Determination of nitrogen content

## 83.060 Guma

### Međunarodna normizacija ISO

ISO 813:2019  
Rubber, vulcanized or thermoplastic – Determination of adhesion to a rigid substrate – 90 degree peel method

ISO 2285:2019  
Rubber, vulcanized or thermoplastic – Determination of tension set under constant elongation, and of tension set, elongation and creep under constant tensile load

ISO 8013:2019  
Rubber, vulcanized – Determination of creep in compression or shear

ISO 20163:2019  
Vulcanized rubber – Determination of free sulfur by gas chromatography (GC) and high performance liquid chromatography (HPLC)

## 83.080.01 Plastika općenito

### Europska normizacija CEN

EN ISO 13468-1:2019  
Plastics – Determination of the total luminous transmittance of transparent materials – Part 1: Single-beam instrument (ISO 13468-1:2019)

### Međunarodna normizacija ISO

ISO 527-1:2019  
Plastics – Determination of tensile properties – Part 1: General principles

ISO 11907-1:2019  
Plastics – Smoke generation – Determination of the corrosivity of fire effluents – Part 1: General concepts and applicability

## 83.080.20 Plastomerni materijali

### Međunarodna normizacija ISO

ISO 4577:2019  
Plastics – Polypropylene and propylene-copolymers – Determination of thermal oxidative stability in air – Oven method

ISO 21970-1:2019  
Plastics – Polyketone (PK) moulding and extrusion materials – Part 1: Designation system and basis for specifications

ISO 21970-2:2019  
Plastics – Polyketone (PK) moulding and extrusion materials – Part 2: Preparation of test specimens and determination of properties

## 83.120 Ojačana plastika

### Međunarodna normizacija ISO

ISO 10406-3:2019  
Fibre-reinforced polymer (FRP) reinforcement of concrete – Test methods – Part 3: CFRP strips

ISO 20144:2019  
Fibre-reinforced plastic composites – Standard qualification plan (SQP) for composite materials, including reduced qualification plan (RQP) and extended qualification plan (EQP) schemes

ISO 21914:2019  
Test methods for fibre-reinforced cementitious composites – Bending moment – Curvature curve by four-point bending test

## 83.140.10 Filmovi i ploče

### Međunarodna normizacija ISO

ISO 11833-1:2019  
Plastics – Unplasticized poly(vinyl chloride) sheets – Part 1: Types, dimensions and characteristics for sheets of thickness not less than 1 mm

ISO 11963:2019  
Plastics – Polycarbonate sheets – Types, dimensions and characteristics

## 83.140.40 Crijeva

### Međunarodna normizacija ISO

- ISO 3821:2019  
Gas welding equipment – Rubber hoses for welding, cutting and allied processes
- ISO 19013-1:2019  
Rubber hoses and tubing for fuel circuits for internal combustion engines – Specification – Part 1: Diesel fuels

## 83.160.10 Gume za cestovna vozila

### Međunarodna normizacija ISO

- ISO 13325:2019  
Tyres – Coast-by methods for measurement of tyre-to-road sound emission

## 83.160.30 Gume za poljoprivredne i ostale strojeve

### Međunarodna normizacija ISO

- ISO 4251-1:2019  
Code designated diagonal tyres (ply rating marked series) for agricultural tractors, trailers and machines – Part 1: Tyre designation and dimensions, and approved rim contours
- ISO 4251-2:2019  
Code designated diagonal tyres (ply rating marked series) for agricultural tractors, trailers and machines – Part 2: Tyre load ratings
- ISO 18807:2019  
Tyres and rims for logging and forestry service

## 83.180 Adhezivi

### Europska normizacija CEN

- EN ISO 11343:2019  
Adhesives – Determination of dynamic resistance to cleavage of high-strength adhesive bonds under impact wedge conditions – Wedge impact method (ISO 11343:2019)
- EN ISO 22631:2019  
Adhesives – Test method for adhesives for floor and wall coverings – Peel test (ISO 22631:2019)
- EN ISO 22632:2019  
Adhesives – Test method for adhesives for floor and wall coverings – Shear test (ISO 22632:2019)
- EN ISO 22635:2019  
Adhesives – Test methods for adhesives for plastic or rubber floor coverings or wall coverings – Determination of dimensional changes after accelerated ageing (ISO 22635:2019)
- EN ISO 22637:2019  
Adhesives – Test of adhesive for floor covering – Determination of the electrical resistance of adhesive films and composites (ISO 22637:2019)

### Međunarodna normizacija ISO

- ISO 22633:2019  
Adhesives – Test methods for adhesives for floor coverings and wall coverings – Determination of the dimensional changes of a linoleum floor covering in contact with an adhesive

## 83.200 Oprema za industriju gume i plastike

### Međunarodna normizacija ISO

- ISO 5893:2019  
Rubber and plastics test equipment – Tensile, flexural and compression types (constant rate of traverse) – Specification

## 85.040 Celuloza

### Međunarodna normizacija ISO

- ISO 1762:2019  
Paper, board, pulps and cellulose nanomaterials – Determination of residue (ash content) on ignition at 525 °C
- ISO 12830:2019  
Paper, board, pulps and cellulose nanomaterials – Determination of acid-soluble magnesium, calcium, manganese, iron, copper, sodium and potassium

## 85.060 Papir i karton

### Međunarodna normizacija ISO

- ISO 12830:2019  
Paper, board, pulps and cellulose nanomaterials – Determination of acid-soluble magnesium, calcium, manganese, iron, copper, sodium and potassium

## 87.040 Boje i lakovi

### Europska normizacija CEN

- EN ISO 2431:2019  
Paints and varnishes – Determination of flow time by use of flow cups (ISO 2431:2019)

### Međunarodna normizacija ISO

- ISO 2808:2019  
Paints and varnishes – Determination of film thickness
- ISO 22518:2019  
Paints and varnishes – Determination of solvents in water-thinnable coating materials – Gas-chromatographic method
- ISO 22557:2019  
Paints and varnishes – Scratch test using a spring-loaded pen
- ISO 22969:2019  
Paints and varnishes – Determination of solar reflectance
- ISO 23496:2019  
Determination of pH value – Reference buffer solutions for the calibration of pH measuring equipment
- ISO 23497:2019  
Determination of pH value – Technical buffer solutions for the calibration of technical measuring installations

## 87.060.10 Pigmenti i punila

### Međunarodna normizacija ISO

- ISO 787-13:2019  
General methods of test for pigments and extenders – Part 13: Determination of water-soluble sulphates, chlorides and nitrates
- ISO 787-15:2019  
General methods of test for pigments and extenders – Part 15: Comparison of resistance to light of coloured pigments of similar types

### 91.010.30 Tehnički aspekti

#### Europska normizacija CEN

EN 1993-1-5:2006/A2:2019  
Eurocode 3 – Design of steel structures – Part 1-5: Plated structural elements

### 91.080.13 Čelične konstrukcije

#### Europska normizacija CEN

EN 1993-1-5:2006/A2:2019  
Eurocode 3 – Design of steel structures – Part 1-5: Plated structural elements

### 91.100.30 Beton i betonski proizvodi

#### Europska normizacija CEN

EN 12390-15:2019  
Testing hardened concrete – Part 15: Adiabatic method for the determination of heat released by concrete during its hardening process

#### Međunarodna normizacija ISO

ISO 10406-3:2019  
Fibre-reinforced polymer (FRP) reinforcement of concrete – Test methods – Part 3: CFRP strips

ISO 21914:2019  
Test methods for fibre-reinforced cementitious composites – Bending moment – Curvature curve by four-point bending test

### 91.100.60 Materijali za toplinsku i zvučnu izolaciju

#### Europska normizacija CEN

EN ISO 16535:2019  
Thermal insulating products for building applications – Determination of long-term water absorption by immersion (ISO 16535:2019)

EN ISO 16536:2019  
Thermal insulating products for building applications – Determination of long-term water absorption by diffusion (ISO 16536:2019)

EN ISO 29767:2019  
Thermal insulating products for building applications – Determination of short-term water absorption by partial immersion (ISO 29767:2019)

### 91.120.40 Zaštita od groma

#### Međunarodna normizacija IEC

IEC 61400-24:2019  
Wind energy generation systems – Part 24: Lightning protection

### 91.140.10 Sustavi centralnoga grijanja

#### Europska normizacija CEN

EN 303-6:2019  
Heating boilers – Part 6: Heating boilers with forced draught burners – Specific requirements for the domestic hot water operation and energy performance of water heaters and combination boilers with atomizing oil burners of nominal heat input not exceeding 70 kW

### 91.140.30 Sustavi prozračivanja i klimatizacije

#### Međunarodna normizacija ISO

ISO 15714:2019  
Method of evaluating the UV dose to airborne microorganisms transiting in-duct ultraviolet germicidal irradiation devices

### 91.140.50 Sustavi opskrbe električnom energijom

#### Europska normizacija CENELEC

EN IEC 61820-1:2019  
Electrical installations for aeronautical ground lighting at aerodromes – Part 1: Fundamental principles (IEC 61820-1:2019)

### 91.140.60 Sustavi opskrbe vodom

#### Međunarodna normizacija ISO

ISO 21053:2019  
Life cycle analysis and recycling of ductile iron pipes for water applications

### 91.140.65 Oprema za grijanje vode

#### Europska normizacija CEN

EN 303-6:2019  
Heating boilers – Part 6: Heating boilers with forced draught burners – Specific requirements for the domestic hot water operation and energy performance of water heaters and combination boilers with atomizing oil burners of nominal heat input not exceeding 70 kW

### 91.140.70 Sanitarne instalacije

#### Europska normizacija CENELEC

EN 60335-2-84:2003/A2:2019  
Household and similar electrical appliances – Safety – Part 2-84: Particular requirements for toilets (IEC 60335-2-84:2002/A2:2013, modified)

### 93.100 Gradnja željezničkih pruga

#### Europska normizacija CENELEC

EN 50668:2019  
Railway applications – Signalling and control systems for non UGTMS Urban Rail systems

### 93.120 Gradnja zračnih luka

#### Europska normizacija CENELEC

EN IEC 61820-1:2019  
Electrical installations for aeronautical ground lighting at aerodromes – Part 1: Fundamental principles (IEC 61820-1:2019)



## **97.030 Kućanski električni uređaji općenito**

### **Europska normizacija CENELEC**

- EN 60335-2-17:2013/A11:2019  
Household and similar electrical appliances – Safety – Part 2-17: Particular requirements for blankets, pads, clothing and similar flexible heating appliances
- EN 60335-2-66:2003/A11:2019  
Household and similar electrical appliances – Safety – Part 2-66: Particular requirements for water-bed heaters
- EN 60335-2-98:2003/A11:2019  
Household and similar electrical appliances – Safety – Part 2-98: Particular requirements for humidifiers

## **97.040.20 Štednjaci, radni stolovi, pećnice i slični uređaji**

### **Europska normizacija CENELEC**

- EN 60335-2-12:2003/A11:2019  
Household and similar electrical appliances – Safety – Part 2-12: Particular requirements for warming plates and similar appliances

## **97.040.40 Strojevi za pranje posuđa**

### **Europska normizacija CENELEC**

- EN 61770:2009/A1:2019  
Electric appliances connected to the water mains – Avoidance of backsiphonage and failure of hose-sets (IEC 61770:2008/A1:2015, modified)

## **97.060 Praonički uređaji**

### **Europska normizacija CENELEC**

- EN IEC 60704-2-16:2019  
Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-16: Particular requirements for washer-dryers (IEC 60704-2-16:2019)
- EN 61770:2009/A1:2019  
Electric appliances connected to the water mains – Avoidance of backsiphonage and failure of hose-sets (IEC 61770:2008/A1:2015, modified)

## **97.140 Namještaj**

### **Europska normizacija CEN**

- EN 17214:2019  
Visual assessment of furniture surfaces

## **97.150 Netekstilni podni prekrivači**

### **Međunarodna normizacija ISO**

- ISO 24334:2019  
Laminate floor coverings – Determination of locking strength for mechanically assembled panels

## **97.195 Umjetnički i obrtnički predmeti**

### **Međunarodna normizacija ISO**

- ISO 21110:2019  
Information and documentation – Emergency preparedness and response

## **97.220.40 Oprema za sportove na otvorenom i sportove na vodi**

### **Europska normizacija CEN**

- EN 893:2019  
Mountaineering equipment – Crampons – Safety requirements and test methods
- EN 14619:2019  
Roller sports equipment – Kick scooters – Safety requirements and test methods
- EN 16579:2018+AC:2019  
Playing field equipment – Portable and permanent socketed goals – Functional, safety requirements and test methods