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4

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### Prodaja strokovne literature

- slovenski standardi SIST
- publikacije SIST
- kopije standardov JUS (do 25. 6. 1991)
- posredovanje tujih standardov in literature
- licenčne kopije standardov ISO in IEC, ETS, DIN BS in predlogov prEN
- Naročila morajo biti pisna (pošta, faks, e-pošta ali osebni obisk); na nadnadno poslanih izvirnih naročilnic mora biti navedena opomba o prvem naročilu. Prosimo vas, da pri prvem naročilu navedete natančen naslov za račun.

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# Objava novih slovenskih nacionalnih standardov

## SIST/TC AVM Avdio, video in večpredstavitveni sistemi ter njihova oprema

### SIST EN IEC 63034:2021

2021-04 (po) (en;fr;de) 45 str. (I)

Mikrozvočniki (IEC 63034:2020)

*Microspeakers (IEC 63034:2020)*

Osnova: EN IEC 63034:2020

ICS: 33.160.50

IEC 63034:2020 specifies the characteristics of microspeakers as well as the relevant test methods on microspeakers using steady-state sinusoidal signals, sinusoidal chirp, multi-tone or noise. The main characteristics include, but are not limited to, impedance, displacement, amplitude frequency response, distortion, and power handling.

### SIST EN IEC 63181-2:2021

2021-04 (po) (en;fr;de) 18 str. (E)

Zaslonska oprema LCD z več zasloni - 2. del: Merilne metode (IEC 63181-2:2020)

*LCD multi-screen display terminals - Part 2: Measuring methods (IEC 63181-2:2020)*

Osnova: EN IEC 63181-2:2020

ICS: 33.160.60

IEC 63181-2:2020 specifies measuring methods for LCD multi-screen display terminals. To evaluate the characteristics of LCD multi-screen display terminals, the following measurement items are specified:

- gap (physical, optical): detailed splicing precision;
- splicing deviation: splicing accuracy of active areas of LCD splicing screen;
- installation deviation: the flatness of terminal surfaces in vertical and horizontal directions;
- luminance uniformity: luminance uniformity of adjacent LCD units;
- chromatic uniformity: chromatic uniformity of adjacent LCD units.

## SIST/TC DTN Dvigalne in transportne naprave

### SIST EN 12385-3:2021

SIST EN 12385-3:2004+A1:2008

2021-04 (po) (en;fr;de) 27 str. (G)

Jeklene žične vrvi - Varnost - 3. del: Podatki za uporabo in vzdrževanje

*Steel wire ropes - Safety - Part 3: Information for use and maintenance*

Osnova: EN 12385-3:2020

ICS: 77.140.65

This Part of this European Standard specifies the type of information for use and maintenance of steel wire ropes to be provided by the rope manufacturer or to be included in the manufacturer's handbook that accompanies a machine, piece of equipment or installation of which the steel wire rope forms a part.

The particular hazards covered by this European Standard are identified in Clause 4.

For steel wire ropes conforming to Parts 8 and 9 used on cableway installations designed to carry persons, additional information for use and maintenance is given in EN 12927-7.

For steel wire rope slings, specific information on use and maintenance is given in EN 15414-2.

This document is not applicable to steel wire ropes manufactured before the date of publication of this document by CEN.

**SIST EN 13155:2021**

SIST EN 13155:2004+A2:2009

**2021-04** (po) (en;fr;de) **112 str. (N)**

Dvigala (žerjavi) - Varnost - Snemljiva dvigalna sredstva

*Crane - Safety - Non-fixed load lifting attachments*

Osnova: EN 13155:2020

ICS: 53.020.30

This European Standard specifies safety requirements for the following non-fixed load lifting attachments for cranes, hoists and manually controlled load manipulating devices:

- a) plate clamps;
- b) vacuum lifters;
- 1) self-priming;
- 2) non-self-priming (pump, venturi, turbine);
- c) electric lifting magnets (battery fed and mains-fed);
- d) permanent lifting magnets;
- e) electro-permanent lifting magnets;
- f) lifting beams;
- g) C-hooks;
- h) lifting forks;
- i) clamps; and
- j) lifting insert systems for use in normal weight concrete, as defined in Clause 3.

This standard does not give requirements for:

- non-fixed load lifting attachments in direct contact with foodstuffs or pharmaceuticals requiring a high level of cleanliness for hygiene reasons;
- hazards resulting from handling specific hazardous materials (e.g. explosives, hot molten masses, radiating materials);
- hazards caused by operation in an explosive atmosphere;
- hazards caused by noise;
- hazards relating to the lifting of persons;
- electrical hazards; and
- hazards due to hydraulic and pneumatic components.

For high risk applications not covered by this standard, EN 13001-2:2014, 4.5.2 gives guidance to deal with them.

This standard covers the proof of static strength, the elastic stability and the proof of fatigue strength. For attachments designed for less than 16 000 lifting cycles, the proof of fatigue strength is covered by the proof of static strength (elastic and yielded conditions, see 5.1.2.1).

**NOTE** This standard does not generally cover attachments intended to lift above people. Some attachments are suitable for that purpose if equipped with additional safety features. In such cases the additional safety features are specified in the specific requirements.

This standard does not cover slings, ladles, expanding mandrels, buckets, grabs, or grab buckets.

This standard is not applicable to non-fixed load lifting attachments for crane, hoists and manually controlled load manipulating devices which are manufactured before the date this publication as EN.

**SIST EN 13586:2021**

SIST EN 13586:2004+A1:2008

**2021-04** (po) (en;fr;de) **30 str. (G)**

Dvigala (žerjavi) - Dostop

*Cranes - Access*

Osnova: EN 13586:2020

ICS: 53.020.20

This European Standard specifies design requirements for non-powered access installed on cranes.

**NOTE 1** For other type of access a requirement for information to be supplied is specified.

This European Standard covers access to control stations and all access required for maintenance, certain erection

and dismantling operations (see below) and emergency.

For those cranes which are intended to be erected and dismantled at their places of work, specific requirements for the

access needed during these operations are given in the appropriate European Standards for specific crane types.

**NOTE 2** Specific requirements for access on particular types of crane are given in the appropriate European Standard for the particular crane type.

The dimensions given in this European Standard do not take into account the safety distances related to:

- guarding;
- relative movement between crane and adjacent structure;
- hazardous surface temperature;
- electrical equipment.

The significant hazards covered by this European Standard are identified in clause 4.

This European Standard is not applicable to cranes which are manufactured before the date of publication by CEN of this standard.

#### **SIST EN 1459-4:2021**

**2021-04** (po) (en;fr;de) 22 str. (F)

Vozila za talni transport - Terenska vozila - Varnostne zahteve in preverjanje - 4. del: Dodatne zahteve za tovornjake z mehanizmom s spremenljivim dosegom za dvigovanje prosto visečih bremen  
*Rough-terrain trucks - Safety requirements and verification - Part 4: Additional requirements for variable-reach trucks handling freely suspended loads*

Osnova: EN 1459-4:2020

ICS: 53.060

This document specifies the additional safety requirements and means of verification for rough-terrain variable-reach trucks (hereafter referred to as trucks) designed and intended for handling suspended loads which can swing freely in one or more directions. It is applicable to trucks covered by EN 1459-1 and EN 1459-2.

This document does not apply to:

- the lifting of suspended loads which by design of the load or the lifting attachments does not allow the load to swing freely in any direction;
- the handling of flexible intermediate bulk containers, as defined in ISO 21898, carried under the forks of the truck;
- any attachments/means used for lifting personnel;
- lifting accessories not included as part of the lifting attachment;
- freight container handling trucks.

This document deals with significant hazards, hazardous situations or hazardous events relevant to trucks handling a freely suspended load, when they are used as intended by the manufacturer.

This document is not applicable to rough-terrain variable-reach trucks fitted with a lifting attachment for handling suspended loads manufactured before the date of its publication.

**SIST EN 1459-5:2021****2021-04** (po) (en;fr;de) **24 str. (F)**

Vozila za talni transport - Terenska vozila - Varnostne zahteve in preverjanje - 5. del: Pripadajoči vmesniki

*Rough-terrain trucks - Safety requirements and verification - Part 5: Attachment interface*

Osnova: EN 1459-5:2020

ICS: 53.060

This document specifies requirements for the truck side of the attachment interface of rough-terrain non-slewing and slewing variable reach trucks (hereafter referred to as “trucks”) dealt with in EN 1459 1, EN 1459-2 and prEN 1459-4.

This document covers the interface of the attachments fitted to the telescopic boom carriage or mounted on the forks. This document does not cover:

- interface for interchangeable equipment designed for lifting person(s) (covered by EN 1459-3);
- interface for equipment for container handling (e.g. spreader);
- interface for equipment permanently installed on the machine and not intended to be removed by the user;

NOTE In this case, equipment becomes part of the truck.

This document does not give requirements for the completed assembly of a truck fitted with an attachment. This document does not address risks to parts of the truck other than the interface with the attachment.

**SIST EN 15011:2021**

SIST EN 15011:2011+A1:2014

**2021-04** (po) (en;fr;de) **94 str. (M)**

Žerjavi - Mostni in portalni (kozičasti) žerjavi

*Cranes - Bridge and gantry cranes*

Osnova: EN 15011:2020

ICS: 53.020.20

This European Standard applies to bridge and gantry cranes able to travel by wheels on rails, runways or roadway surfaces, and to gantry cranes without wheels mounted in a stationary position.

This European Standard specifies requirements for all significant hazards, hazardous situations and events relevant to bridge and gantry cranes when used as intended and under conditions foreseen by the manufacturer (see Clause 4).

This European Standard does not include requirements for the lifting of persons.

The specific hazards due to potentially explosive atmospheres, ionising radiation and operation in electromagnetic fields beyond the range of EN 61000-6-2 are not covered by this European Standard.

This European Standard is applicable to bridge and gantry cranes manufactured after the date of its publication as an EN.

**SIST EN 16842-5:2021****2021-04** (po) (en;fr;de) **12 str. (C)**

Vozila za talni transport - Gnana vozila za talni transport - Vidno polje voznika - Preskusne metode in preverjanje - 5. del: Vozila za talni transport s spremenljivim dosegom in z zmogljivostjo, večjo od 10 000 kg

*Powered industrial trucks - Visibility - test methods and verification - Part 5: Industrial variable-reach trucks greater than 10 000 kg capacity*

Osnova: EN 16842-5:2021

ICS: 53.060

This document specifies the requirements and test procedures for 360° visibility of sit on self-propelled industrial variable-reach trucks (herein after referred to as trucks) without a load, with a

capacity greater than 10 000 kg in accordance with ISO 5053-1 and it is intended be used in conjunction with EN 16842 1.

Where specific requirements in this part are modified from the general requirements in EN 16842 1, the requirements of this part are truck specific and to be used for sit-on self-propelled industrial variable-reach trucks with a capacity greater than 10 000 kg.

This part of EN 16842 deals with all significant hazards, hazardous situations or hazardous events, relevant to the visibility of the operator for applicable machines when used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

This document does not deal with rough-terrain variable-reach trucks (see EN 15850).

#### **SIST EN 16842-8:2021**

**2021-04** (po) (en;fr;de) **15 str. (D)**

Vozila za talni transport - Gnana vozila za talni transport - Vidno polje voznika - Preskusne metode in preverjanje - 8. del: Čelni viličar s stoječim upravljavcem in z nosilnostjo do 10 000 kg

*Powered industrial trucks - Visibility-test methods and verification - Part 8: Stand-on counterbalance trucks up to and including 10 000 kg capacity*

Osnova: EN 16842-8:2021

ICS: 53.060

This document specifies the requirements and test procedures for 360° visibility of stand-on counterbalance trucks with a capacity up to and including 10 000 kg in accordance with ISO 5053 1 (herein after referred to as trucks) without a load and it is intended to be used in conjunction with EN 16842-1.

Where specific requirements in this document are modified from the general requirements in EN 16842 1, the requirements of this document are truck-specific and are to be used for stand-on counterbalance trucks with a capacity up to, and including, 10 000 kg.

This part of EN 16842 deals with all significant hazards, hazardous situations or hazardous events, relevant to the visibility of the operator for applicable machines when used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

#### **SIST EN 16851:2017+A1:2021**

SIST EN 16851:2017

SIST EN 16851:2017/KFprA1:2019

**2021-04** (po) (en;fr;de) **53 str. (J)**

Žerjavi - Lahki žerjavni sistemi

*Cranes - Light crane systems*

Osnova: EN 16851:2017+A1:2020

ICS: 53.020.20

This document applies to:

- light crane systems, either suspended or free-standing systems, where the rated capacity of any single lifting device is 4 t or less;
- pillar and wall-mounted jib cranes, without an operator's cabin, whose rated capacity is 10 t or less and whose overturning load moment is 500 kNm or less.

NOTE For illustration of crane types, see Annex B.

This document is not applicable to cranes covered by another product specific crane standard, e.g. EN 15011:2011+A1:2014 or EN 14985:2012.

This document is applicable to cranes and crane systems, whose structures are made of steel or aluminium, excluding aluminium structures containing welded joints.

This document gives requirements for all significant hazards, hazardous situations and events relevant to cranes, when used as intended and under conditions foreseen by the manufacturer (see Clause 4).

The specific hazards due to potentially explosive atmospheres, ionizing radiation, operation in electro-magnetic fields beyond the range of EN 61000 6 2:2016 and operation in pharmacy or food industry are not covered by this document.

This document does not cover hazards related to the lifting of persons.

This document is applicable to cranes, which are manufactured after the date of its publication by CEN as a European Standard.

This document is not applicable to cranes manufactured before the date of its publication.

#### **SIST EN 17076:2021**

**2021-04** (po) (en;fr;de) **29 str. (G)**

Stolpni žerjavi - Sistemi za preprečitev trka - Varnostne zahteve

*Tower cranes - Anti-collision systems - Safety requirements*

Osnova: EN 17076:2020

ICS: 53.020.20

This European Standard specifies the functional requirements of anti-collision devices and systems installed on self-erecting tower cranes or tower cranes assembled from component parts to avoid the risks of collision between several cranes in use, between a crane in use and fixed obstacles, and over prohibited zones.

It applies to anti-collision devices manufactured after the publication of this standard.

NOTE For anti-collision systems used to avoid the risk of collision with power lines, additional requirements might be necessary.

This document defines the safety characteristics and requirements of anti-collision devices and systems intended for installation on self-erecting tower cranes or tower cranes assembled from component parts.

In particular:

- performance level;
- information to be provided by the sensors installed on the crane;
- operation, particularly in the event of failure, override and free jib slewing states of a crane;
- type of communication between devices;
- information for the crane operator and outside indicator.

It also specifies the requirements for marking the device or the system and the content of the instruction for use.

## **SIST/TC EAL Električni alarmi**

#### **SIST-TS CLC/TS 50131-5-1:2021**

**2021-04** (po) (en) **26 str. (F)**

Alarmni sistemi - Sistemi za javljanje vloma - 5-1. del: Povezave - Zahteve za žične povezave za I&HAS opremo nameščeno v nadzorovanih prostorih

*Alarm systems - Intrusion systems - Part 5-1: Interconnections - Requirements for wired*

*Interconnection for I&HAS equipments located in supervised premises*

Osnova: CLC/TS 50131-5-1:2021

ICS: 13.320, 13.310

This document applies to interconnections between intrusion and hold-up alarm system components using specific or non-specific wired interconnections (e.g. between SPT and CIE). The interconnected components are located within the supervised premises, or mounted on the outside of the supervised premises (e.g. external warning devices).

This document does not apply to interconnections between components located within the same enclosure, or to interconnections between parts of an I&HAS component if covered by the relevant product standard. This document does not define the physical requirements of the interconnection media.

This document is expected to be used in conjunction with the other parts of the EN 50131 series that define the functional requirements of the equipment regardless of the interconnection technique used.

Where monitoring of the functionality of the interconnections is undertaken by an interconnected component, this is defined in the relevant product standard in the EN 50131 series. If a component standard indicates that an interconnection will be monitored, then this document determines the monitored conditions applicable to the interconnection.



**NOTE 1** For example, if there is no requirement in a detector standard to monitor a remote indication of detection input, this document does not apply to that particular interconnection. Requirements for the monitoring of the functionality of power connections between I&HAS components are defined in the relevant product standard and are not included within this document.

This document defines the terms used in the field of intrusion and hold-up alarm equipment using such interconnections and includes the requirements relevant to the equipment interfaces.

Wired interconnection media can include metallic single stranded insulated cable, metallic multi-stranded insulated cable, and fibre optic cable. These cables can comprise single or multiple cores.

**NOTE 2** Interconnections using RF techniques (i.e. wire free interconnections) are dealt with by EN 50131 5 3.

## **SIST/TC EXP Električni aparati za eksplozivne atmosfere**

**SIST EN 15188:2021**

**2021-04** (po) (en;fr;de) **35 str. (H)**

SIST EN 15188:2007

Določanje lastnosti samovžiga usedlih plasti prahu

*Determination of the spontaneous ignition behaviour of dust accumulations*

Osnova: EN 15188:2020

ICS: 13.220.40, 13.230

This European Standard specifies analysis and evaluation procedures for determining self-ignition temperatures (TSI) of combustible dusts or granular materials as a function of volume by hot storage experiments in ovens of constant temperature. The specified test method is applicable to any solid material for which the linear correlation of  $\lg(V/A)$  versus the reciprocal self-ignition temperature  $1/TSI$  (with TSI in K) holds (i.e. not limited to only oxidatively unstable materials).

This European Standard is not applicable to the ignition of dust layers or bulk solids under aerated conditions (e.g. as in fluid bed dryer).

This European Standard shall not be applied to dusts like recognised explosives that do not require atmospheric oxygen for combustion, nor to pyrophoric materials.

**NOTE** Because of regulatory and safety reasons "recognised explosives" are not in the scope of this European Standard. In spite of that, substances which undergo thermal decomposition reactions and which are not "recognised explosives" but behave very similarly to self-ignition processes when they decompose are in the scope. If there are any doubts as to whether the dust is an explosive or not, experts should be consulted.

**SIST EN IEC 60079-10-1:2021**

**2021-04** (po) (en;fr;de) **115 str. (N)**

SIST EN 60079-10-1:2016

Eksplozivne atmosfere - 10-1. del: Razvrstitev prostorov - Eksplozivne plinske atmosfere (IEC 60079-10-1:2020)

*Explosive atmospheres - Part 10-1: Classification of areas - Explosive gas atmospheres (IEC 60079-10-1:2020)*

Osnova: EN IEC 60079-10-1:2021

ICS: 29.260.20

IEC 60079-10-1:2020 is concerned with the classification of areas where flammable gas or vapour hazards may arise and may then be used as a basis to support the proper design, construction, operation and maintenance of equipment for use in hazardous areas.

It is intended to be applied where there may be an ignition hazard due to the presence of flammable gas or vapour, mixed with air, but it does not apply to:

- a) mines susceptible to firedamp;
- b) the processing and manufacture of explosives;
- c) catastrophic failures or rare malfunctions which are beyond the concept of normality dealt with in this standard;
- d) rooms used for medical purposes;
- e) domestic premises;

f) where a hazard may arise due to the presence of combustible dusts or combustible flyings but the principles may be used in assessment of a hybrid mixture.

Flammable mists may form or be present at the same time as flammable vapour. In such case the strict application of the details in this document may not be appropriate. Flammable mists may also form when liquids not considered to be a hazard due to the high flash point are released under pressure. In these cases the classifications and details given in this document do not apply.

For the purpose of this document, an area is a three-dimensional region or space.

Atmospheric conditions include variations above and below reference levels of 101,5 kPa (1 015 mbar) and 20 °C (293 K), provided that the variations have a negligible effect on the explosion properties of the flammable substances.

In any site, irrespective of size, there may be numerous sources of ignition apart from those associated with equipment. Appropriate precautions will be necessary to ensure safety in this context. This standard is applicable with judgement for other ignition sources but in some applications other safeguards may also need to be considered. E.g. larger distances may apply for naked flames when considering hot work permits.

This document does not take into account the consequences of ignition of an explosive atmosphere except where a zone is so small that if ignition did occur it would have negligible consequences.

This third edition of IEC 60079-10-1 cancels and replaces the second edition, published in 2015, and constitutes a technical revision, see foreword for further details.

#### **SIST-TS CLC IEC/TS 60079-39:2020/AC:2021**

**2021-04 (po) (en;fr;de) 3 str. (AC)**

Eksplozivne atmosfere - 39. del: Lastnovarni sistemi z elektronsko krmiljeno omejitvijo trajanja isker (IEC/TS 60079-39:2015/COR1:2020)

*Explosive atmospheres - Part 39: Intrinsically safe systems with electronically controlled spark duration limitation (IEC/TS 60079-39:2015/COR1:2020)*

Osnova: CLC IEC/TS 60079-39:2019/AC:2020-12

ICS: 29.260.20

Popravek k standardu SIST-TS CLC IEC/TS 60079-39:2020.

Ta tehnična specifikacija določa konstrukcijo, preskušanje, namestitve ter vzdrževanje električnih naprav in sistemov i, ki uporabljajo elektronsko krmiljeno trajanje isker z namenom zagotavljanja ustrezne ravni lastne varnosti. Ta tehnična specifikacija vsebuje zahteve za lastnovarne naprave in napeljave, namenjene uporabi v eksplozivnih atmosferah, ter za povezane naprave, namenjene za povezavo z lastnovarnimi tokokrogi, ki vstopajo v take atmosfere. Ta tehnična specifikacija izključuje raven zaščite »ia« in uporabo tokokrogov, krmiljenih s programsko opremo. Ta tehnična specifikacija se uporablja za električno opremo, ki uporablja napetosti, ki niso višje od 40 V enosmerne napetosti, in varnostni faktor 1,5 za skupine IIB, IIA, I ter III. Uporablja se tudi za naprave skupine IIC »ic« z varnostnim faktorjem 1,0. Naprave skupine IIC »ib« z varnostnim faktorjem 1,5 so omejene na napetosti do 52 V enosmerne napetosti. Ta vrsta zaščite se uporablja za električno opremo, v kateri električni tokokrogi sami ne morejo povzročiti eksplozije v okoliških eksplozivnih atmosferah. Ta tehnična specifikacija se uporablja za lastnovarne naprave in sisteme, ki uporabljajo elektronsko krmiljeno trajanje isker s ciljem zagotoviti več električne moči ob hkratnem ohranjanju ustrezne ravni varnosti. Ta tehnična specifikacija se uporablja tudi za električno opremo ali dele električne opreme, ki so zunaj nevarnih območjih ali jih varuje še ena vrsta zaščite, navedena v skupini standardov IEC 60079, pri čemer je lahko lastna varnost električnih tokokrogov v eksplozivnih atmosferah odvisna od zasnove in konstrukcije take električne opreme ali delov take električne opreme. Električni tokokrogi v nevarnih območjih se za uporabo na takih mestih ocenjujejo na podlagi te tehnične specifikacije. Ta tehnična specifikacija dopolnjuje in spreminja zahteve standardov IEC 60079-0, IEC 60079-11, IEC 60079-14, IEC 60079-17 in IEC 60079-25.

## SIST/TC IBLP Barve, laki in premazi

**SIST EN ISO 11127-1:2021**

SIST EN ISO 11127-1:2012

**2021-04** (po) (en;fr;de) **14 str. (D)**

Priprava jeklenih podlag pred nanašanjem barv in sorodnih premazov - Preskusne metode za nekovinske granulate za peskanje - 1. del: Vzorčenje (ISO 11127-1:2021)

*Preparation of steel substrates before application of paints and related products - Test methods for non-metallic blast-cleaning abrasives - Part 1: Sampling (ISO 11127-1:2020)*

Osnova: EN ISO 11127-1:2021

ICS: 25.220.10

This document specifies a method for the sampling of non-metallic blast-cleaning abrasives from consignments and for the subdivision of the sample into quantities suitable for undertaking the appropriate test methods specified in ISO 11127-2, ISO 11127-3, ISO 11127-4, ISO 11127-5, ISO 11127-6 and ISO 11127-7.

This document is a part of the ISO 11127 series dealing with the sampling and testing of non-metallic abrasives for blast-cleaning.

The types of non-metallic abrasive and requirements for each are contained in the ISO 11126 series.

The ISO 11126 and ISO 11127 series have been drafted as a coherent set of International Standards on non-metallic blast-cleaning abrasives. Information on all parts of both series is given in [Annex B](#).

**SIST EN ISO 11127-2:2021**

SIST EN ISO 11127-2:2012

**2021-04** (po) (en;fr;de) **12 str. (C)**

Priprava jeklenih podlag pred nanašanjem barv in sorodnih premazov - Preskusne metode za nekovinske granulate za peskanje - 2. del: Ugotavljanje porazdelitve velikosti delcev (ISO 11127-2:2021)

*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 11127-2:2021)*

Osnova: EN ISO 11127-2:2021

ICS: 25.220.10

This document specifies a method for the determination of the particle size distribution of non-metallic blast-cleaning abrasives by sieving.

This document is a part of the ISO 11127 series dealing with the sampling and testing of non-metallic abrasives for blast-cleaning.

The types of non-metallic abrasive and requirements for each are contained in the ISO 11126 series. The ISO 11126 and ISO 11127 series have been drafted as a coherent set of International Standards on non-metallic blast-cleaning abrasives. Information on all parts of both series is given in [Annex A](#).

**SIST EN ISO 11127-3:2021**

SIST EN ISO 11127-3:2012

**2021-04** (po) (en;fr;de) **12 str. (C)**

Priprava jeklenih podlag pred nanašanjem barv in sorodnih premazov - Preskusne metode za nekovinske granulate za peskanje - 3. del: Ugotavljanje navidezne gostote (ISO 11127-3:2021)

*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 11127-3:2021)*

Osnova: EN ISO 11127-3:2021

ICS: 25.220.10

This document specifies a method for the determination of the apparent density of non-metallic blast-cleaning abrasives.

This document is a part of the ISO 11127 series dealing with the sampling and testing of non-metallic abrasives for blast-cleaning.

The types of non-metallic abrasive and requirements for each are contained in the ISO 11126 series.

The ISO 11126 and ISO 11127 series have been drafted as a coherent set of International Standards on non-metallic blast-cleaning abrasives. Information on all parts of both series is given in Annex A.

**SIST EN ISO 11127-5:2021**

SIST EN ISO 11127-5:2012

**2021-04 (po) (en;fr;de) 12 str. (C)**

Priprava jeklenih podlag pred nanašanjem barv in sorodnih premazov - Preskusne metode za nekovinske granulate za peskanje - 5. del: Ugotavljanje vlage (ISO 11127-5:2020)

*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 11127-5:2020)*

Osnova: EN ISO 11127-5:2021

ICS: 25.220.10

This document specifies a method for the determination of the level of free moisture present in nonmetallic blast-cleaning abrasives. It is determined by measuring the mass lost on heating.

This document is one of a number of parts of ISO 11127 dealing with the sampling and testing of nonmetallic abrasives for blast-cleaning.

The types of non-metallic abrasive and requirements on each are contained in the ISO 11126 series.

The ISO 11126 series and the ISO 11127 series have been drafted as a coherent set of International Standards on non-metallic blast-cleaning abrasives. Information on all parts of both series is given in Annex A.

**SIST EN ISO 15741:2021**

**2021-04 (po) (en;fr;de) 32 str. (G)**

Barve in laki - Premazi za zmanjšanje trenja v notranjosti jeklenih cevovodov na kopnem in na morju za nekorozivne pline (ISO 15741:2016)

*Paints and varnishes - Friction-reduction coatings for the interior of on- and offshore steel pipelines for non-corrosive gases (ISO 15741:2016)*

Osnova: EN ISO 15741:2021

ICS: 87.040

This document specifies requirements and methods of test for liquid epoxy paints and internal coatings of such paints in steel pipes and fittings for the conveyance of non-corrosive gas. It also deals with the application of the paint. Other paints or paint systems are not excluded provided they comply with the requirements given in this document. The coating consists of one layer, which is normally shop-applied on blast-cleaned steel by airless spray or other suitable spraying techniques. The applied and cured paint film must be smooth to give the desired reduction in friction. Brush application is only used for small repair jobs.

**SIST EN ISO 20566:2021**

SIST EN ISO 20566:2013

**2021-04 (po) (en;fr;de) 17 str. (E)**

Barve in laki - Ugotavljanje odpornosti premaznega sistema proti razenju s pomočjo visokotlačnega pranja v laboratoriju (ISO 20566:2020)

*Paints and varnishes - Determination of the scratch resistance of a coating system using a laboratory-scale car-wash (ISO 20566:2020)*

Osnova: EN ISO 20566:2021

ICS: 87.040, 43.020

This document specifies a test procedure for assessing the scratch resistance of organic paint coatings, in particular paint coatings used in the automotive industry (i.e. for assessing their carwash resistance). Machine-based washing is simulated in the laboratory environment using a rotating brush and synthetic dirt. The test conditions have been designed to be as close as possible

to the real conditions in a car-wash. If the test parameters are suitably chosen, the method can also be used for testing protective plastics films and plastics components

## SIST/TC IEMO Električna oprema v medicinski praksi

**SIST EN IEC 60336:2021**

SIST EN 60336:2006

**2021-04** (po) (en) **47 str. (I)**

Medicinska električna oprema - Rentgenske naprave za medicinsko diagnostiko - Mere žariščnih točk in s tem povezane značilnosti (IEC 60336:2020)

*Medical electrical equipment - X-ray tube assemblies for medical diagnosis - Focal spot dimensions and related characteristics (IEC 60336:2020)*

Osnova: EN IEC 60336:2021

ICS: 11.040.55, 11.040.50

IEC 60336:2020 applies to FOCAL SPOTS in medical diagnostic X-RAY TUBE ASSEMBLIES for medical use, operating at X-RAY TUBE VOLTAGES up to and including 150 kV.

This document describes the test methods employing digital detectors for determining:

- a) FOCAL SPOT dimensions in terms of NOMINAL FOCAL SPOT VALUES, ranging from 0,1 to 3,0;
  - b) LINE SPREAD FUNCTIONS;
  - c) one-dimensional MODULATION TRANSFER FUNCTIONS;
  - d) FOCAL SPOT PINHOLE RADIOGRAMS,
- and the means for indicating compliance.

In informative annexes, STAR PATTERN imaging and BLOOMING VALUE are described.

IEC 60336:2020 cancels and replaces the fourth edition published in 2005. This edition constitutes a technical revision.

The significant changes of this fifth edition with respect to the previous edition are detailed in Clause E.6. These changes are:

- a) introduction of digital detectors and discretization errors;
- b) fewer normative requirements;
- c) support for both SLIT CAMERA and PINHOLE CAMERA;
- d) reintroduction of distorted (skewed) FOCAL SPOT;
- e) keeping of STAR PATTERNS and BLOOMING VALUE as informative.

## SIST/TC IPMA Polimerni materiali in izdelki

**SIST EN ISO 11357-4:2021**

SIST EN ISO 11357-4:2014

**2021-04** (po) (en;fr;de) **19 str. (E)**

Polimerni materiali - Diferenčna dinamična kalorimetrija (DSC) - 4. del: Ugotavljanje specifične toplotne kapacitete (ISO 11357-4:2021)

*Plastics - Differential scanning calorimetry (DSC) - Part 4: Determination of specific heat capacity (ISO 11357-4:2021)*

Osnova: EN ISO 11357-4:2021

ICS: 17.200.10, 83.080.01

This document specifies methods for determining the specific heat capacity of plastics by differential scanning calorimetry.

**SIST EN ISO 24024-1:2021**

SIST EN ISO 1060-1:2000

**2021-04** (po) (en;fr;de) **16 str. (D)**

Polimerni materiali - Homo- in kopolimeri vinilklorida - 1. del: Sistem označevanja in podlage za specifikacije (ISO 24024-1:2021)

*Plastics - Homopolymer and copolymer resins of vinyl chloride - Part 1: Designation system and basis for specifications (ISO 24024-1:2021)*

Osnova: EN ISO 24024-1:2021

ICS: 83.080.20

**1.1** This document establishes a system of designation for vinyl chloride thermoplastic resins which

can be used as the basis for specifications.

**1.2** The types of vinyl chloride plastics are differentiated from each other by a classification system based on appropriate levels of the designatory properties:

- a) reduced viscosity;
  - b) apparent density;
  - c) retention on a 63 µm mesh sieve;
  - d) plasticizer absorption at room temperature (for general-purpose resins);
  - e) the viscosity and the type of rheological behaviour of a standard paste (for paste resins only);
- and on information about basic polymer parameters, polymerization processes and intended applications.

**1.3** This document is applicable to resins in powder form which consist of homopolymers of the monomer vinyl chloride and copolymers, terpolymers, etc., of vinyl chloride with one or more other

monomers, but where vinyl chloride is the main constituent. The resins can contain small amounts of non-polymerized substances (e.g. emulsifying or suspending agents, catalyst residues, etc.) and other substances added during the course of polymerization.

**1.4** It is not intended to imply that materials having the same designation give necessarily the same performance. This document does not provide engineering data, performance data or data on processing conditions which can be required to specify a material for a particular application and/or method of processing.

If such additional properties are required, they are determined in accordance with the test methods

specified in ISO 24024-2, if suitable.

**1.5** In order to specify a resin for a particular application or to ensure reproducible processing, additional requirements can be given in data block 5 (see 4.1).

**SIST EN ISO 24024-2:2021**

SIST EN ISO 1060-2:2000

**2021-04** (po) (en;fr;de) **11 str. (C)**

Polimerni materiali - Homo- in kopolimeri vinilklorida - 2. del: Priprava preskušancev in ugotavljanje lastnosti (ISO 24024-2:2021)

*Plastics - Homopolymer and copolymer resins of vinyl chloride - Part 2: Preparation of test samples and determination of properties (ISO 24024-2:2021)*

Osnova: EN ISO 24024-2:2021

ICS: 83.080.20

This document specifies the methods of preparation of test samples and the test methods to be used in determining the properties of PVC resins. Requirements for handling test material and for conditioning the material before testing are given here. In addition, properties and test methods which are suitable and necessary to characterize PVC resins are listed.

**SIST EN ISO 3861:2021**

SIST EN ISO 3861:2009

**2021-04** (po) (en;fr;de) **15 str. (D)**

Gumene cevi in cevni priključki za peskanje - Specifikacija (ISO 3861:2021)

*Rubber hoses and hose assemblies for sand and grit blasting - Specification (ISO 3861:2021)*

Osnova: EN ISO 3861:2021

ICS: 83.140.40

This document specifies the requirements for rubber hoses and hose assemblies for wet and dry sand and grit blasting, suitable for use up to a maximum working pressure of 0,65 MPa (6,5 bar) and over an operating temperature range of -25 °C to +70 °C.

## **SIST/TC ISCB Sekundarne celice in baterije**

**SIST EN IEC 62485-6:2021**

**2021-04** (po) (en) **27 str. (G)**

Varnostne zahteve za sekundarne baterije in baterijske naprave - 5. del: Varno obratovanje litij-ionskih baterij, uporabljenih za vleko

*Safety requirements for secondary batteries and battery installations - Part 5: Safe operation of lithium-ion batteries in traction applications*

Osnova: EN IEC 62485-6:2021

ICS: 29.220.30, 29.220.20

IEC 62485-6:2021 applies to battery installations used for electric off-road vehicles; it does not cover the design of such vehicles. Examples of the main applications are:

- industrial

- cleaning machines,
- trucks for material handling, for example, lift trucks, tow trucks, automatic guided vehicles,
- electrically propelled lifting platforms;

- other applications

- electric powered boats and ships.

**SIST EN IEC 63115-2:2021**

**2021-04** (po) (en) **26 str. (F)**

Sekundarni členi in baterije z alkalnimi ali drugimi nekislinskimi elektroliti - Zatesnjeni nikelj-kovinski hidridni ponovno polnljivi členi in moduli za industrijsko uporabo - 2. del: Varnost

*Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-metal hydride rechargeable cells and modules for use in industrial applications - Part 2: Safety*

Osnova: EN IEC 63115-2:2021

ICS: 29.220.30

IEC-63115-2:2021 specifies designations, tests and requirements for the safe operation of sealed nickel-metal hydride cells and batteries used in industrial applications excluding road vehicles.

Since this document covers batteries for various industrial applications, it includes those requirements which are common and minimum to the various applications.

## **SIST/TC ISEL Strojni elementi**

**SIST EN ISO 22081:2021**

SIST EN 22768-2:2000

**2021-04** (po) (en;fr;de) **22 str. (F)**

Specifikacija geometrijskih veličin izdelka (GPS) - Geometrijsko toleriranje - Splošne geometrijske specifikacije in splošne specifikacije velikosti (ISO 22081:2021)

*Geometrical product specifications (GPS) - Geometrical tolerancing - General geometrical specifications and general size specifications (ISO 22081:2021)*

Osnova: EN ISO 22081:2021

ICS: 17.040.40

This document gives the rules of definition and interpretation of general specifications defined according to ISO 8015 (general tolerancing) applicable on the whole workpiece. The general specifications can be applied to integral surfaces only, i.e. integral lines are excluded. The general geometrical and dimensional specifications defined in this document applies to the following:

- for dimensional specifications:
- for features of size:
- linear size ( $\pm$ ) (according to ISO 14405-1);
- angular size ( $\pm$ )(according to ISO 14405-3);
- for geometrical specifications:
- for integral features:
- geometrical specifications with the characteristic surface profile ( $\Delta$ ).

## SIST/TC ITEK Tekstil in tekstilni izdelki

**SIST EN ISO 9073-4:2021**

SIST EN ISO 9073-4:1999

**2021-04** (po) (en;fr;de) **13 str. (D)**

Tekstilije - Metode preskušanja vlaknovin - 4. del: Ugotavljanje nadaljnje trgalne trdnosti (ISO 9073-4:2021)

*Nonwovens - Test methods - Part 4: Determination of tear resistance by the trapezoid procedure (ISO 9073-4:2021)*

Osnova: EN ISO 9073-4:2021

ICS: 59.080.30

This document specifies a method for the determination of tear resistance of nonwovens by the trapezoid method.

This document applies to nonwovens.

## SIST/TC IVNT Visokonapetostna tehnika

**SIST EN IEC 61083-3:2021**

**2021-04** (po) (en) **35 str. (H)**

Instrumenti in programska oprema za meritve visokih napetosti in velikih tokov - 3. del: Zahteve za strojno opremo za preskušanje z izmeničnimi in enosmernimi napetostmi in toki

*Instruments and software used for measurement in high-voltage and high-current tests - Part 3: Requirements for hardware for tests with alternating and direct voltages and currents*

Osnova: EN IEC 61083-3:2021

ICS: 19.080, 17.220.20

IEC 61083-3:2020 is applicable to digital recording instruments used for measurements during tests with high alternating and direct voltages and currents. It specifies the measuring characteristics and calibrations required to meet the measuring uncertainties and procedures specified in the relevant IEC standards (e.g. IEC 60060-1, IEC 60060-2, IEC 60060-3, IEC 62475, IEC 61180).

This document is applicable to those digital recording instruments that will be designed and type tested according to this document.

This document

- defines performance requirements for digital recording instruments used during tests with alternating voltages and currents (AC) or direct voltages and currents (DC);
- specifies the necessary requirements for such instruments to ensure their suitability for use under the relevant standards;
- establishes the tests and procedures necessary to demonstrate their compliance;
- defines the terms related to digital recording instruments with recording function and access to raw data.



Examples of relevant alternating and direct voltages and currents to be measured are listed in Annex D.

This International Standard has the status of a horizontal standard in accordance with IEC Guide 108.

## SIST/TC IŽNP Železniške naprave

### SIST EN 15595:2019/AC:2021

2021-04 (po) (en;fr;de) 2 str. (AC)

Železniške naprave - Zavore - Preprečevanje zdrsa koles - Popravek AC

*Railway applications - Braking - Wheel slide protection*

Osnova: EN 15595:2018/AC:2021

ICS: 45.040

Popravek k standardu SIST EN 15595:2019.

Ta evropski standard določa merila za sistemsko sprejemljivost in tipsko odobritev sistema za preprečevanje zdrsa koles (WSP). Določa tudi merila za izvajanje preprečevanja zdrsa koles za posebne železniške naprave in posebne obratovalne pogoje ter zahteve za nadzor vrtenja koles (WRM). To vključuje načrtovanje, preskušanje in oceno kakovosti sistemov za preprečevanje zdrsa koles in za nadzor vrtenja koles ter njihovih sestavnih delov.

Ta evropski standard se ne uporablja za določanje zmogljivosti zaviranja vlaka, opremljenega s sistemom za preprečevanje zdrsa koles, pri vseh okoljskih pogojih.

### SIST EN 15624:2021

SIST EN 15624:2009+A1:2010

2021-04 (po) (en;fr;de) 30 str. (G)

Železniške naprave - Zavore - Avtomatsko menjalo "naloženo-prazno"

*Railway applications - Braking - Empty-loaded changeover devices*

Osnova: EN 15624:2021

ICS: 45.040

This document is applicable to empty-loaded changeover devices designed to automatically sense when the load of a railway vehicle reaches a defined value (changeover mass), which represents the point at which the vehicle is classed as "loaded" and thereby requires the brake force to be adjusted accordingly to achieve the required brake performance. This document also covers manually operated empty-loaded changeover devices and the associated changeover plates.

This document specifies the requirements for the design, dimensions, manufacture and testing of empty-loaded changeover devices.

### SIST EN 15625:2021

SIST EN 15625:2009+A1:2011

2021-04 (po) (en;fr;de) 26 str. (F)

Železniške naprave - Zavore - Naprave za samodejno zaznavanje spremembe obtežbe

*Railway applications - Braking - Automatic variable load sensing devices*

Osnova: EN 15625:2021

ICS: 45.040

This document applies variable load sensing devices designated to continuously sense the load of a railway vehicle and provide a signal that can be used by a relay valve for the automatic variation of the air pressure used for brake applications, thereby adjusting the brake force accordingly to achieve the required brake performance.

This document specifies the requirements for the design, dimensions, manufacture and testing of automatic variable load sensing devices.

## SIST/TC KAT Karakterizacija tal, odpadkov in blata

**SIST EN ISO 54321:2021**

**2021-04** (po) (en;fr;de) **47 str. (I)**

Tla, obdelani biološki odpadki, blato in odpadki - Razklop frakcij elementov, topnih v zlatotopki (ISO 54321:2020)

*Soil, treated biowaste, sludge and waste - Digestion of aqua regia soluble fractions of elements (ISO 54321:2020)*

Osnova: EN ISO 54321:2021

ICS: 13.030.20, 13.080.10

This European Standard specifies two methods for digestion of soil, treated biowaste, sludge and waste by the use of aqua regia as digestion solution.

This European Standard is applicable for the following elements:

aluminium (Al), antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), bismuth (Bi), boron (B), cadmium (Cd), calcium (Ca), cerium (Ce), cesium (Cs), chromium (Cr), cobalt (Co), copper (Cu), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), gallium (Ga), germanium (Ge), gold (Au), hafnium (Hf), holmium (Ho), indium (In), iridium (Ir), iron (Fe), lanthanum (La), lead (Pb), lithium (Li), lutetium (Lu), magnesium (Mg), manganese (Mn), mercury (Hg), molybdenum (Mo), neodymium (Nd), nickel (Ni), palladium (Pd), phosphorus (P), platinum (Pt), potassium (K), praseodymium (Pr), rubidium (Rb), rhenium (Re), rhodium (Rh), ruthenium (Ru), samarium (Sm), scandium (Sc), selenium (Se), silicon (Si), silver (Ag), sodium (Na), strontium (Sr), sulfur (S), tellurium (Te), terbium (Tb), thallium (Tl), thorium (Th), thulium (Tm), tin (Sn), titanium (Ti), tungsten (W), uranium (U), vanadium (V), ytterbium (Yb), yttrium (Y), zinc (Zn), and zirconium (Zr).

This European Standard may also be applicable for the digestion of other elements.

Digestion with aqua regia will not necessarily accomplish total decomposition of the sample. The extracted analyte concentrations may not necessarily reflect the total content in the sample.

**SIST-TS CEN/TS 16800:2021**

SIST-TS CEN/TS 16800:2016

**2021-04** (po) (en) **53 str. (J)**

Smernica za validacijo fizikalno-kemijskih analiznih metod

*Guideline for the validation of physico-chemical analytical methods*

Osnova: CEN/TS 16800:2020

ICS: 13.080.10, 13.060.50

This Technical Specification describes an approach for the validation of physico-chemical analytical methods for environmental matrices.

The guidance in this document addresses two different validation approaches, in increasing order of complexity. These are:

- a) method development and validation at the level of single laboratories (intra-laboratory validation);
- b) method validation at the level of several laboratories (between-laboratory or inter-laboratory validation), with a focus on methods that are sufficiently mature and robust to be applied not only by a few expert laboratories but by laboratories operating at the routine level.

The concept of these two approaches is strictly hierarchical, i.e. a method shall fulfil all criteria of the first level before it can enter the validation protocol of the second level.

This Technical Specification is applicable to the validation of a broad range of quantitative physico-chemical analytical methods for the analysis of water (including surface water, groundwater, waste water, and sediment). Analytical methods for other environmental matrices, like soil, sludge, waste, and biota can be validated in the same way. It is intended either for analytical methods aiming at substances that have recently become of interest or for test methods applying recently developed technologies.

The minimal requirements that are indispensable for the characterization of the fitness for purpose of an analytical method are: selectivity, precision, bias and measurement uncertainty. The aim of validation is to prove that these requirements are met.

**SIST-TS CEN/TS 17403:2021****2021-04 (po) (en;fr;de) 11 str. (C)**

Gnojila - Določevanje v hladni in vroči vodi netopnega dušika, dobljenega s počasnim sproščanjem iz trdnih gnojil urea formaldehida in metilen uree, in določevanje topnosti polimernih hranil v raztopini fosfatnega pufra s pH 7,5 pri 100 °C

*Fertilizers - Determination of cold water insoluble nitrogen and hot water insoluble nitrogen in solid urea formaldehyde and methylene urea slow-release fertilizers and determination of the solubility of nutrient polymers in phosphate buffer solution with a pH of 7,5 at 100 °C*

Osnova: CEN/TS 17403:2021

ICS: 65.080

This document specifies a method for the determination of the cold and hot water insoluble nitrogen content in solid urea formaldehyde and methylene urea slow-release fertilizers and for the determination of the hot water soluble nitrogen content in nutrient polymers (see Component Material Category CMC 9 as specified in the Regulation (EC) No xxxx/2019 on Fertilizing Products [1]).

**SIST/TC KŽP Kmetijski pridelki in živilski proizvodi****SIST EN ISO 16140-3:2021****2021-04 (po) (en) 84 str. (M)**

Mikrobiologija v prehranski verigi - Validacija metode - 3. del: Protokol za preverjanje referenčnih in validiranih alternativnih metod, izvedenih v posameznem laboratoriju (ISO 16140-3:2021)

*Microbiology of the food chain - Method validation - Part 3: Protocol for the verification of reference methods and validated alternative methods in a single laboratory (ISO 16140-3:2021)*

Osnova: EN ISO 16140-3:2021

ICS: 07.100.30

This document deals with verification of methods for the detection and/or the enumeration of microorganisms, with particular emphasis on the implementation of a reference/alternative method in the user laboratory and verification of a reference/alternative method using items included in the scope of the method and tested routinely but not tested in the original validation study.

**SIST EN ISO 22184:2021****2021-04 (po) (en) 33 str. (H)**

Mleko in mlečni proizvodi - Določanje vsebnosti sladkorjev - Anionska izmenjevalna kromatografija z visoko ločljivostjo s pulzno amperometrično detekcijo (HPAEC-PAD) (ISO 22184:2021)

*Milk and milk products - Determination of the sugar contents - High performance anion exchange chromatography with pulsed amperometric detection method (HPAEC-PAD) (ISO 22184:2021)*

Osnova: EN ISO 22184:2021

ICS: 67.100.01

This International Standard describes the quantitative liquid chromatographic determination of specific sugars (galactose, glucose, fructose, sucrose, lactose, and maltose) in various milk and milk products, applying arabinose or fucose as internal standards. The method is applicable for the following different dairy matrices: milk, milk powder, chees, whey powder, infant formula, dessert and yogurt. Soy containing dairy products are excluded. The determination of the lactose content in low lactose milk products is excluded.

A sophisticated high performance anion exchange chromatographic method in combination with pulsed amperometric detection (HPAEC-AD) is applied. With this method the following 13 different

mono- and disaccharides can be separated: fucose, arabinose, galactose, glucose, fructose, sucrose, lactose, lactulose, maltose, melobiose, trehalose, platinose (maltulose) and maltotriose.

**SIST EN ISO 22579:2021****2021-04** (po) (en) **30 str. (G)**

Hrana za dojenčke in prehranska dopolnila za odrasle - Določevanje fruktanov - Anionska izmenjevalna kromatografija z visoko ločljivostjo s pulzno amperometrično detekcijo (HPAEC-PAD) po encimski obdelavi (ISO 22579:2020)

*Infant formula and adult nutritionals - Determination of fructans - High performance anion exchange chromatography with pulsed amperometric detection (HPAEC-PAD) after enzymatic treatment (ISO 22579:2020)*

Osnova: EN ISO 22579:2021

ICS: 67.050

This International Standard specifies a method for the determination of inulin-type fructans (including oligofructose, and fructooligosaccharides) in infant formula and adult nutritionals containing 0,03 g/100 g to 5,0 g/100 g of fructan in the product as prepared ready for consumption.

A high performance anion exchange chromatographic method in combination with pulsed amperometric detection (HPAEC-PAD) is applied.

## SIST/TC MOC Mobilne komunikacije

**SIST EN 301 489-4 V3.3.1:2021****2021-04** (po) (en) **20 str. (E)**

Standard elektromagnetne združljivosti (EMC) za radijsko opremo in storitve - 4. del: Posebni pogoji za fiksne radijske povezave in pomožno opremo - Harmonizirani standard za elektromagnetno združljivost

*ElectroMagnetic Compatibility (EMC) standard for radio equipment and services - Part 4: Specific conditions for fixed radio links and ancillary equipment - Harmonised Standard for electromagnetic compatibility*

Osnova: ETSI EN 301 489-4 V3.3.1 (2021-02)

ICS: 33.100.01, 33.060.20

The present document specifies technical characteristics and methods of measurement for Analogue and Digital Fixed Radio Links operating as fixed Point-to-Point, and Point-to-Multipoint systems as defined in table 1, including the associated ancillary equipment, in respect of electromagnetic compatibility.

Technical specifications related to the antenna port of the radio equipment are not included in the present document.

Such technical specifications are found in the relevant product standards for the effective use of the radio spectrum, see table 1.

The processing and protection switch, (de)modulator, transmitter, receiver, RF filters, branching networks and feeders are covered by the present document. The multiplexing and/or demultiplexing elements are covered if they form part of the transmitter, receiver and/or transceiver.

NOTE: The relationship between the present document and essential requirements of article 3.1(b) of Directive 2014/53/EU [i.1] is given in annex A.

**SIST EN 303 364-2 V1.1.1:2021****2021-04** (po) (en) **38 str. (H)**

Primarni nadzorni radar (PSR) - Harmonizirani standard za dostop do radijskega spektra - 2. del: Senzorji PSR za nadzor zračnega prometa (ATC), ki delujejo v frekvenčnem pasu od 2700 MHz do 3100 MHz (pas S)

*Primary Surveillance Radar (PSR) - Harmonised Standard for access to radio spectrum - Part 2: Air Traffic Control (ATC) PSR sensors operating in the frequency band 2 700 MHz to 3 100 MHz (S band)*

Osnova: ETSI EN 303 364-2 V1.1.1 (2021-02)

ICS: 33.060.99, 03.220.50

The present document specifies technical characteristics and methods of measurements for ground based monostatic ATC primary surveillance radars with the following characteristics:

- operating in the 2 700 MHz to 3 100 MHz frequency range;
- transmitter output peak power up to 100 kW;
- the transceiver-antenna connection uses a hollow metallic rectangular waveguide of type WR284/WG10/R32 according to IEC 60153-2 [i.6] with a minimum length between the output of the power amplifier and the input to the antenna of 2,886 m (20 times the wavelength of the waveguide cut-off frequency);
- the antenna rotates, is waveguide-based and passive;
- the transceiver output uses a RF circulator.

NOTE 1: Phased array ATC primary surveillance radars are not covered by the present document.

NOTE 2: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.1] is given in annex A.

### **SIST EN 303 699 V1.1.1:2021**

**2021-04** (po) (en) 71 str. (L)

Satelitske zemeljske postaje in sistemi (SES) - Fiksne zemeljske postaje, ki komunicirajo z negeostacionarnimi satelitskimi sistemi FSS v pasovih 20 GHz in 30 GHz - Harmonizirani standard za dostop do radijskega spektra

*Satellite Earth Stations and Systems (SES) - Fixed earth stations communicating with non-geostationary satellite systems in the 20 GHz and 30 GHz FSS bands - Harmonised Standard for access to radio spectrum*

Osnova: ETSI EN 303 699 V1.1.1 (2021-02)

ICS: 33.060.30

The present document covers requirements to demonstrate that radio equipment both effectively uses and supports the efficient use of radio spectrum in order to avoid harmful interference. The present document applies to satellite communications Earth Stations (ES) with the following characteristics:

- The ES is designed for stationary operation.
- The ES is operating as part of a satellite network (e.g. star, mesh or point to point) used for the distribution and/or exchange of information.
- The transmit and receive frequencies are shown in table 1.

The ES transmits within the frequency range from 27,5 GHz to 29,1 GHz and 29,5 GHz to 30,0 GHz, which is a band allocated to the Fixed Satellite Services (FSS) (Earth-to-space) among other services. National regulations will specify the bands available for the operation of the ES. Such regulations may designate some parts of the frequency range 27,5 GHz to 29,1 GHz to terrestrial services such as the Fixed Service. However, the operation of the ES may be permitted under national regulations in the 29,50 GHz to 30,00 GHz band since this band is allocated on a primary basis to the Fixed Satellite Service.

- The ES receives in one or more frequencies within the range from 17,30 GHz to 20,20 GHz (FSS).
- The ES uses linear or circular polarization.
- The ES operates through non-geostationary satellites.
- The ES is designed for unattended operation.
- The ES is controlled and monitored by a Network Control Facility (NCF). This function may be performed centrally (e.g. for a network of ESs with a central hub) or it could be performed within the ES for autonomous control. The NCF is outside the scope of the present document.
- The ES operating in the 27,5 GHz to 28,6 GHz and 29,5 GHz to 30 GHz bands: efd limits given in article 22 of the ITU Radio Regulations [i.5] apply for the ESs operating with the NGSO system for the protection of the GSO networks (see No. 22.5D of the ITU RR [i.5]).
- ES operating in the 28,6 GHz to 29,1 GHz band: No. 9.11A of the ITU RR [i.5] applies to the NGSO network of the ES, meaning that the NGSO will be required to coordinate with earlier filed GSO networks or NGSO systems (See No. 5.523A of the ITU RR [i.5]).
- The ES has one or more directive antennas that track satellites.

The present document applies to the ES with its ancillary equipment and its various telecommunication ports, and when

operated within the boundary limits of the operational environmental profile as declared by the manufacturer and when installed as required by the manufacturer's declaration or in the user documentation.

**NOTE 1:** Operational requirements are defined by national administrations and by relevant ECC Decisions.

In addition to the present document, other ENs that specify technical requirements in respect of essential requirements under other parts of article 3 of the Directive 2014/53/EU [i.1] may apply to equipment within the scope of the present document.

**NOTE 2:** A list of such ENs is included on the web site <http://www.newapproach.org>.

**NOTE 3:** The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.1] is given in annex A.

#### **SIST EN 303 883-1 V1.2.1:2021**

**2021-04** (po) (en) **107 str. (N)**

Naprave kratkega dosega (SRD) in ultra širokopasovna (UWB) tehnologija - 1. del: Merilne tehnike za zahteve oddajnika

*Short Range Devices (SRD) and Ultra Wide Band (UWB) - Part 1: Measurement techniques for transmitter requirements*

Osnova: ETSI EN 303 883-1 V1.2.1 (2021-02)

ICS: 33.060.20

The present document summarizes the available information of possible measurement techniques and procedures for the conformance measurement of various signal formats (e.g. Ultra Wide Band) in order to comply with the given transmission limits given in the current regulation.

The present document could be used as a reference for existing and future ETSI standards covering UWB and other technologies.

#### **SIST EN 303 883-2 V1.2.1:2021**

**2021-04** (po) (en) **59 str. (J)**

Naprave kratkega dosega (SRD) in ultra širokopasovna (UWB) tehnologija - 2. del: Merilne tehnike za zahteve sprejemnika

*Short Range Devices (SRD) and Ultra Wide Band (UWB) - Part 2: Measurement techniques for receiver requirements*

Osnova: ETSI EN 303 883-2 V1.2.1 (2021-02)

ICS: 33.060.20

The present document provides measurement procedures for receiver requirements to address the spectrum efficiency requirements of the RED [i.10].

The baseline receiver concept is a set of two parameters given in clause 5 of the present document providing guidance for HS development, which can be further refined by the responsible TB.

Baseline receiver concept comprises the following parameters:

- Receiver Baseline Sensitivity (RBS); and
- Receiver Baseline Resilience (RBR).

The Baseline receiver concept is a further development of the signal interferer handling concept, see ETSI TS 103 361 [i.4].

#### **SIST EN IEC 61300-3-30:2021**

**2021-04** (po) (en)

#### **SIST EN 61300-3-30:2004**

**22 str. (F)**

Optični spojni elementi in pasivne komponente - Postopki osnovnega preskušanja in meritvev- 3-30. del: Preiskave in meritve - Geometrija čela za pravokotne tulce (IEC 61300-3-30:2020)

*Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-30: Examinations and measurements - Endface geometry of rectangular ferrule (IEC 61300-3-30:2020)*

Osnova: EN IEC 61300-3-30:2021

ICS: 33.180.20

IEC 61300-3-50:2020 is available as <https://webstore.iec.ch/publication/68229> IEC 61300-3-50:2020 RLV which contains the International Standard and its Redline version, showing all changes of the technical content compared to the previous edition. IEC 61300-3-50:2020 describes a method of measuring the end face geometry of rectangular multifibre ferrules having an IEC defined optical interface. The primary attributes are fibre position relative to the end face, either withdrawal or protrusion, end face angle relative to the guide pin bores, fibre tip radii and core dip for multimode fibres. This second edition cancels and replaces the first edition published in 2003. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- measurement of the individual fibre tip radii;
- introduction of the geometry limit (GL) metric;
- introduction of the minus coplanarity metric;
- new method for measuring the core dips;
- all measurement regions are now identical for MM and SM fibres;
- the ferrule surface angle sign convention has been changed.

**SIST EN IEC 61300-3-53:2021**

SIST EN 61300-3-53:2015

2021-04

(po)

(en)

26 str. (F)

Optični spojni elementi in pasivne komponente - Osnovni preskusni in merilni postopki - 3-53. del: Preiskave in meritve - Merilna metoda obdanega koničastega pretoka (EAF), osnovana na dvodimenzionalnih podatkih daljnega polja iz mnogorodovnega valovoda (vključno z optičnim vlaknom) (IEC 61300-3-53:2020)

*Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-53: Examinations and Measurements - Encircled angular flux (EAF) measurement method based on two-dimensional far field data from multimode waveguide (including fibre) (IEC 61300-3-53:2020)*

Osnova: EN IEC 61300-3-53:2021

ICS: 33.180.20

This part of IEC 61300 defines the encircled angular flux measurement of multimode waveguide light sources, in which most of the transverse modes are excited. The term "waveguide" is understood to include both channel waveguides and optical fibres but not slab waveguides.

The applicable fibre types are the followings:

- A1 specified in IEC 60793-2-10;
- A3 specified in IEC 60793-2-30;
- A4 specified in IEC 60793-2-40.

**SIST EN IEC 63138-2:2021**

2021-04

(po)

(en)

30 str. (G)

Večkanalni radiofrekvenčni konektorji - 2. del: Področna specifikacija za okrogle konektorje skupine MQ4 (IEC 63138-2:2020)

*Multi-channel radio-frequency connectors - Part 2: Sectional specification for MQ4 series circular connectors (IEC 63138-2:2020)*

Osnova: EN IEC 63138-2:2021

ICS: 33.120.30

IEC 63138-2:2020, which is a sectional specification (SS), provides information and rules for the preparation of detail specifications (DS) for MQ4 series circular connectors with four RF channels, as well as a detailed specification of the blank format. An MQ4 series circular connector with 50  $\Omega$  nominal impedance has four RF channels which can be engaged and disengaged at the same time. There are two versions of plug connectors, one is a quick-lock version, and the other is a threaded version. The socket connector provides two coupling mechanisms, a quick-lock and a threaded coupling.

This document also specifies the mating face dimensions and gauging information of MQ4 series circular connectors, and tests selected from IEC 63138-1, applicable to all detail specifications relating to MQ4 series circular connectors.

## SIST/TC MOV Merilna oprema za elektromagnetne veličine

**SIST EN IEC 61010-2-202:2021**

SIST EN 61010-2-202:2017

**2021-04 (po) (en;fr;de) 18 str. (E)**

Varnostne zahteve za električno opremo za meritve, nadzor in laboratorijsko uporabo - 2-202. del: Posebne zahteve za električni pogon ventilov (IEC 61010-2-202:2020)

*Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-202: Particular requirements for electrically operated valve actuators (IEC 61010-2-202:2020)*

Osnova: EN IEC 61010-2-202:2021

ICS: 23.060.01, 71.040.10, 19.080

IEC 61010-2-202:2020 is available as [IEC 61010-2-202:2020 RLV](https://webstore.iec.ch/publication/67908) which contains the International Standard and its Redline version, showing all changes of the technical content compared to the previous edition. IEC 61010-2-202:2020 constitutes Part 2-202 of a planned series of standards on industrial-process measurement, control and automation equipment. Safety terms of general use are defined in IEC 61010-1. More specific terms are defined in each part. This part incorporates the safety related requirements of electrically operated valve ACTUATORS and SOLENOIDS. This document does not cover functional safety aspects of electrically operated ACTUATORS and SOLENOIDS.

**SIST EN IEC 62769-101-1:2021**

SIST EN 62769-101-1:2015

**2021-04 (po) (en;fr;de) 34 str. (H)**

Integracija procesne naprave (FDI) - 101-1. del: Profili - Osnovno procesno vodilo H1 (IEC 62769-101-1:2020)

*Field device Integration (FDI) - Part 101-1: Profiles - Foundation Fieldbus H1 (IEC 62769-101-1:2020)*

Osnova: EN IEC 62769-101-1:2021

ICS: 35.240.50, 25.040.40

IEC 62769-101-1:2020 is available as [IEC 62769-101-1:2020 RLV](https://webstore.iec.ch/publication/68048) which contains the International Standard and its Redline version, showing all changes of the technical content compared to the previous edition. IEC 62769-101-1:2020 specifies the IEC 62769 profile for IEC 61784 1\_CP 1/1 (FOUNDATION™ Fieldbus H1).

**SIST EN IEC 62769-101-2:2021**

SIST EN 62769-101-2:2015

**2021-04 (po) (en;fr;de) 31 str. (G)**

Integracija procesne naprave (FDI) - 101-2. del: Profili - Osnovno procesno vodilo HSE (IEC 62769-101-2:2020)

*Field Device Integration (FDI) - Part 101-2: Profiles - Foundation Fieldbus HSE (IEC 62769-101-2:2020)*

Osnova: EN IEC 62769-101-2:2021

ICS: 35.240.50, 25.040.40

IEC 62769-101-2:2020 is available as [IEC 62769-101-2:2020 RLV](https://webstore.iec.ch/publication/68049) which contains the International Standard and its Redline version, showing all changes of the technical content compared to the previous edition. IEC 62769-101-2:2020 specifies the IEC 62769 profile for IEC 61784 1, CP 1/2 (FOUNDATION™ Fieldbus HSE).



## SIST/TC OGS Ogrevanje, hlajenje in prezračevanje stavb

### SIST EN 12514:2020/AC:2021

2021-04 (po) (en;fr;de) 2 str. (AC)

Sestavni deli sistemov za oskrbo uporabnikov s tekočimi gorivi - Popravek AC

*Components for supply systems for consuming units with liquid fuels*

Osnova: EN 12514:2020/AC:2021

ICS: 75.200, 27.060.10

Popravek k standardu SIST EN 12514:2020.

This European Standard specifies the safety and performance requirements and tests methods for the components for supply systems. Their intended use is the supply with liquid fuel for one or more consuming units from one or more tanks.

This European Standard applies to pressurised, negative pressurised, unpressurised, underground, above ground, inside and/or outside systems to supply liquid fuels.

The components for supply systems covered by this standard are piping kits/systems and their components.

Not covered by this standard are items belonging to the consuming unit (e. g.: heating/cooling appliances in buildings) and items used for the mounting and support of components.

Not covered by this standard are items with the intended use of gas for building heating/cooling systems and any items of heating networks.

Not covered are items used for drainage (including highways) and disposal of other liquids and gaseous waste, supply of gases, pressure and vacuum systems, communications, sanitary and cleaning fixtures and storage fixtures.

### SIST EN 13321-1:2021

SIST EN 13321-1:2013

2021-04 (po) (en;fr;de) 6 str. (B)

Odporna izmenjava podatkov v avtomatizaciji stavb, regulaciji in upravljanju stavb - Elektronski sistemi za stanovanja in stavbe - 1. del: Zahteve za proizvode in sisteme

*Open data communication in building automation, controls and building management - Home and building electronic system - Part 1: Product and system requirements*

Osnova: EN 13321-1:2021

ICS: 97.120, 35.240.67

**This document specifies, as for Home or Building Electronic Systems (HBES) for the domain of Building Automation and Control System Application and Building Management (BACS), common rules for a class of multi-application bus systems where the functions are decentralised and linked through a common communication process. This document sets the basic requirements for products and systems. The requirements may also apply to the distributed functions of any equipment connected in a home or building control system if no specific standard exists for this equipment or system.**

Due to its reference to the EN 50090 series, this document sets requirements for the BACS area in relation to Architecture and Hardware and Application and Communication of systems based on HBES amongst other areas, and specifies the basic requirements for interoperability (between products and systems).

### SIST EN ISO 52127-1:2021

SIST EN 16947-1:2018

2021-04 (po) (en;fr;de) 26 str. (F)

Energijske lastnosti stavb - Sistem upravljanja stavb - 1. del: Modul M10-12 (ISO 52127-1: 2021)

*Energy performance of buildings - Building management system - Part 1: Module M10-12 (ISO 52127-1: 2021)*

Osnova: EN ISO 52127-1:2021

ICS: 35.240.67, 97.120, 91.120.10

This European Standard specifies operational activities, overall alarming, fault detection and diagnostics, reporting, monitoring, energy management functions, functional interlocks and optimizations to set and maintain energy performance of buildings.

Table 1 shows the relative position of this standard within the set of EPB standards in the context of the modular structure as set out in prEN ISO 52000 1:2015.

NOTE 1 In FprCEN ISO/TR 52000 2:2014 the same table can be found, with, for each module, the numbers of the relevant EPB standards and accompanying Technical Reports that are published or in preparation.

NOTE 2 The modules represent EPB standards, although one EPB standard may cover more than one module and one module may be covered by more than one EPB standard, for instance a simplified and a detailed method respectively.

Table 1 - Position of this standard (in casu M10–12), within the modular structure of the set of EPB standards.

#### **SIST-TP CEN ISO/TR 52127-2:2021**

**2021-04** (po) (en;fr;de) **19 str. (E)**

Energijske lastnosti stavb - Avtomatizacija, regulacija in upravljanje stavb - 2. del: Razlaga in utemeljitev ISO 52127-1 (ISO/TR 52127-2:2021)

*Energy performance of buildings - Building automation, controls and building management - Part 2: Explanation and justification of ISO 52127-1 (ISO/TR 52127-2:2021)*

Osnova: CEN ISO/TR 52127-2:2021

ICS: 91.120.10, 35.240.67, 97.120

This Technical Report refers to EN 16947-1:2015, Building Management System - Module M10-12.

It contains information to support the correct understanding, use and national adaption of EN 16947-1.

This Technical Report does not contain any normative provision.

#### **SIST-TP CEN/TR 13582:2021**

SIST CR 13582:2001

**2021-04** (po) (en) **50 str. (I)**

Vgradnja merilnikov toplote - Smernice za izbiro, vgradnjo in delovanje merilnikov toplote

*Installation of thermal energy meters - Guidelines for the selection, installation and operation of thermal energy meters*

Osnova: CEN/TR 13582:2021

ICS: 17.200.10

The EN 1454 standard provides technical principles and practical advice in selecting, installing and commissioning of thermal energy meters. However, because a standard cannot cover all areas completely, this document assists users of thermal energy meters.

## **SIST/TC OVP Osebna varovalna oprema**

#### **SIST EN 352-1:2021**

SIST EN 352-1:2003

**2021-04** (po) (en;fr;de) **19 str. (E)**

Varovala sluha - Splošne zahteve - 1. del: Naušniki

*Hearing protectors - General requirements - Part 1: Earmuffs*

Osnova: EN 352-1:2020

ICS: 13.340.20

This European Standard specifies requirements for construction, design, performance, marking and user information for earmuffs.

In particular, it specifies the sound attenuation of the earmuffs, measured in accordance with EN ISO 4869-1.

This European Standard does not deal with earmuffs for attachment to a helmet or which are part of a helmet.

Ergonomic aspects are addressed by taking into account, within the requirements, the interaction between the wearer, the device and where possible the working environment in which the device is likely to be used (see Annex ZA and EN 458).

**SIST EN 352-2:2021** SIST EN 352-2:2003  
**2021-04** (po) (en;fr;de) **18 str. (E)**  
Varovala sluha - Splošne zahteve - 2. del: Ušesni čepi  
*Hearing protectors - General requirements - Part 2: Earplugs*  
Osnova: EN 352-2:2020  
ICS: 13.340.20

This European Standard specifies requirements on construction, design, performance, marking and user information for earplugs.

In particular, it specifies the sound attenuation of the earplugs, measured in accordance with EN ISO 4869-1.

Ergonomic aspects are addressed by taking into account, within the requirements, the interaction between the wearer, the device and where possible the working environment in which the device is likely to be used (see Annex ZA and EN 458).

**SIST EN 352-3:2021** SIST EN 352-3:2003  
**2021-04** (po) (en;fr;de) **21 str. (F)**  
Varovala sluha - Splošne zahteve - 3. del: Naušniki, pritrjeni na varovalno opremo za zaščito glave in/ali obraza  
*Hearing protectors - General requirements - Part 3: Earmuffs attached to head protection and/or face protection devices*  
Osnova: EN 352-3:2020  
ICS: 13.340.20

This European Standard specifies requirements for construction, design, performance, marking and user information for earmuffs attached to head protection and/or face protection devices, hereinafter referred to as 'mounted earmuffs'.

In particular, it specifies the sound attenuation of mounted earmuffs, measured in accordance with EN ISO 4869-1.

Because one model of earmuffs designed to be attached to head protection and/or face protection devices can be fitted to a number of other models and sizes, this part of the standard sets out a series of physical and acoustic requirements for earmuffs when fitted to the specified model(s) or size(s) of head protection and/or face protection device.

All requirements apply to earmuffs fitted to one of the specified models or sizes of head protection and/or face protection device (the basic combination). An abbreviated set of requirements apply to the same model of earmuffs when fitted to the other specified models or sizes of head protection and/or face protection device (the supplementary combinations).

Information shall be given on the range of models of carriers tested with the earmuffs which satisfies this European Standard.

Ergonomic aspects are addressed by taking into account, within the requirements, the interaction between the wearer, the device and, where possible, the working environment in which the device is likely to be used (see Annex ZA and EN 458).

**SIST EN 352-4:2021** SIST EN 352-4:2001  
SIST EN 352-4:2001/A1:2006  
**2021-04** (po) (en;fr;de) **9 str. (C)**  
Varovala sluha - Varnostne zahteve - 4. del: Naušniki, prilagodljivi ravni hrupa  
*Hearing protectors - Safety requirements - Part 4: Level-dependent earmuffs*  
Osnova: EN 352-4:2020  
ICS: 13.340.20

**This European Standard is applicable to level-dependent earmuffs. It specifies requirements on construction, design, performance, marking and user information related to the inclusion of the level-dependent functionality.**

**SIST EN 352-5:2021**

SIST EN 352-5:2003  
SIST EN 352-5:2003/A1:2006

**2021-04 (po) (en;fr;de) 9 str. (C)**  
Varovala sluha - Varnostne zahteve - 5. del: Naušniki za znižanje ravni hrupa  
*Hearing protectors - Safety requirements - Part 5: Active noise reduction earmuffs*  
Osnova: EN 352-5:2020  
ICS: 13.340.20

**This European Standard is applicable to active noise reduction (ANR) earmuffs. It specifies requirements on construction, design, performance, marking and user information related to the inclusion of the active noise reduction facility.**

**SIST EN 352-6:2021**

SIST EN 352-6:2003

**2021-04 (po) (en;fr;de) 9 str. (C)**  
Varovala sluha - Varnostne zahteve - 6. del: Naušniki z varnostnim avdio vhodom  
*Hearing protectors - Safety requirements - Part 6: Earmuffs with safety-related audio input*  
Osnova: EN 352-6:2020  
ICS: 13.340.20

**This European Standard is applicable to earmuffs supplemented by a safety-related audio input. It specifies requirements on construction, design, performance, marking and user information related to the inclusion of the safety-related audio input.**

**SIST EN 352-7:2021**

SIST EN 352-7:2003

**2021-04 (po) (en;fr;de) 9 str. (C)**  
Varovala sluha - Varnostne zahteve - 7. del: Ušesni čepi, prilagodljivi ravni hrupa  
*Hearing protectors - Safety requirements - Part 7: Level-dependent earplugs*  
Osnova: EN 352-7:2020  
ICS: 13.340.20

**This European Standard is applicable to level-dependent earplugs. It specifies requirements on construction, design, performance, marking and user information related to the inclusion of the level-dependent functionality.**

**SIST EN 352-9:2021**

**2021-04 (po) (en;fr;de) 8 str. (B)**  
Varovala sluha - Varnostne zahteve - 9. del: Ušesni čepi z varnostnim avdio vhodom  
*Hearing protectors - Safety requirements - Part 9: Earplugs with safety-related audio input*  
Osnova: EN 352-9:2020  
ICS: 13.340.20

**This European Standard is applicable to earplugs supplemented by a safety-related audio input. It specifies requirements on construction, design, performance, marking and user information related to the inclusion of the safety-related audio input.**

## SIST/TC POZ Požarna varnost

**SIST EN 1366-4:2021**

SIST EN 1366-4:2006+A1:2010

**2021-04** (po) (en;fr;de) **56 str. (J)**

Preskusi požarne odpornosti servisnih inštalacij - 4. del: Tesnilna sredstva za ravne stike  
*Fire resistance tests for service installations - Part 4: Linear joint seals*

Osnova: EN 1366-4:2021

ICS: 91.100.50, 13.220.50

This document specifies a method for determining the fire resistance of linear joint seals based on their intended end use. This document is used in conjunction with EN 1363-1.

The following tests are included in this document:

- no mechanically induced movement;
- mechanically induced movement.

This document does not provide quantitative information on the rate of leakage of smoke and/or hot gases, or on the transmission or generation of fumes.

The load-bearing capacity of a linear joint seal is not addressed in this document.

**SIST-TS CEN/TS 17551:2021**

**2021-04** (po) (en;fr;de) **29 str. (G)**

Vgrajene naprave za gašenje - Avtomatski sprinklerski sistemi - Navodila za zaščito pred potresi  
*Fixed firefighting systems - Automatic sprinkler systems - Guidance for earthquake bracing*

Osnova: CEN/TS 17551:2021

ICS: 91.120.25, 13.220.10

This document specifies requirements for earthquake protection of automatic sprinkler systems in accordance with EN 12845. This document applies only to locations in earthquake zones in accordance to EN 1998-1:2004, 5.2.11) and for area subject to peak ground acceleration above 9 % of g.

This document does not cover all legislative requirements. In certain countries specific national regulations apply and take precedence over this document. Users of this document are advised to inform themselves of the applicability or non-applicability for this document by their national responsible authorities.

## SIST/TC SPN Storitve in protokoli v omrežjih

**SIST EN 302 099 V2.2.1:2021**

**2021-04** (po) (en) **44 str. (I)**

Okoljski inženiring (EE) - Napajanje opreme v dostopovnem omrežju

*Environmental Engineering (EE) - Powering of equipment in access network*

Osnova: ETSI EN 302 099 V2.2.1 (2021-02)

ICS: 33.050.01, 19.040

The present document describes the principles for powering of Telecommunications Equipment (TE) in access networks (both traditional copper based and Next Generation fibre and/or hybrid based) and contains requirements for the powering systems, laying down:

- the characteristics of the input and output interfaces of the power units; the recommendations for TE power protection, also regarding network integrity and public services availability requirements;
- the management data, necessary to guarantee the required availability of the network and provided public services and to ensure the maintenance of the TE power units.

The present document takes into account the innovative characteristics of fibre-based access network equipment, for which the intrinsic limitation of the local power plants should be considered regarding the equipment installed inside telecom centre or local exchanges or installed

in streets or inside buildings: it goes from "complete integration of the power plant in the TE" to "remote power feeding from a distant power plant".

The present document provides detailed information in annex A on the improved reliability of public electric power grid and on the improved reliability and availability of new fibre-based NGA network. It should be considered that, for street cabinet TE, the local power scenario is common and, in that case, the main power supply availability characteristics are mainly based on electrical energy provider's performance.

The present document applies to the powering of all equipment of the access network (copper, fibre or radio networks) located inside or outside telecommunications centres or local exchanges, differentiating the applicable and sustainable power protection requirements. The access network is defined as the part of the telecommunications network, which comprises the network termination (passive or active) that is installed inside customer premises and the first exchange that can be also the broadband local exchange.

As innovative fibre-based and hybrid-based NGA network TE are changing the traditional powering paradigm, the present document proposes the viable measures to comply with the integrity, availability and uninterrupted telephone/VoIP provision that European regulatory defines for public networks [i.18].

The present document describes different configurations of powering the TE and the impacts on networks and services continuity and reliability:

- Local power supply for TE (e.g. street cabinet, active network termination, etc.).
- Remote Feeding to TE from central office through copper access pair.
- Cluster Power supply feeding power for a cluster of TE.
- Remote power feeding to TE from centre or cluster power through a power cable.
- Back feeding or Reverse Powering architecture that can supply power to Access Network Units such as ONU or ONT or remote DSL unit from the customer premises through its final distribution access copper pair.

## SIST/TC TLP Tlačne posode

**SIST EN 13555:2021**

SIST EN 13555:2014

**2021-04** (po) (en;fr;de) **40 str. (H)**

Prirobnice in prirobnični spoji - Preskusni postopki in parametri tesnil, ki so potrebni za konstruiranje prirobničnih spojev, sestavljenih iz okroglih prirobnic in tesnil

*Flanges and their joints - Gasket parameters and test procedures relevant to the design rules for gasketed circular flange connections*

Osnova: EN 13555:2021

ICS: 23.040.80, 23.040.60

This European Standard specifies the gasket parameters required by EN 1591 1 and provides the test procedures for establishing the values of these parameters.

Gaskets which are wholly based upon elastomers, or based upon elastomers with only the inclusion of particulate fillers or particulate reinforcement, as opposed to gaskets combining elastomers, fillers and fibrous reinforcement, are beyond the scope of this document.

NOTE The testing procedures given might be applicable to gaskets of other shapes and dimensions.

**SIST EN 14772:2021**

SIST EN 14772:2005

**2021-04** (po) (en;fr;de) **17 str. (E)**

Prirobnice in prirobnični spoji - Nadzor in preskušanje za zagotavljanje kakovosti tesnil, izdelanih skladno s standardi serije EN 1514 in EN 12560

*Flanges and their joints - Quality assurance inspection and testing of gaskets in accordance with the series of standards EN 1514 and EN 12560*

Osnova: EN 14772:2021

ICS: 23.040.80, 23.040.60

This document specifies the quality assurance procedures that are applicable to ensure that delivered gaskets comply with the relevant product standards. This document sets down procedures by which a user can have confidence that the salient features of each batch of gaskets or gasket materials delivered to him will be constant.

The gasket types covered by this document are those that are within the scope of the series of standards

EN 1514 and EN 12560 and are simultaneously within the scope of the series of standards EN 1591. An exception is those gaskets intended solely for domestic fluids (like water, waste water ...) which are based on rubber with or without reinforcement like fillers and/or inserts.

#### **SIST EN 1514-2:2014+A1:2021**

SIST EN 1514-2:2014/kFprA1:2020  
SIST EN 1514-2:2014

**2021-04** (po) (en;fr;de) **16 str. (D)**

Prirobnice in prirobnični spoji - Tesnila za prirobnice z oznako PN - 2. del: Spiralna tesnila za jeklene prirobnice (vključuje dopolnilo A1)

*Flanges and their joints - Gaskets for PN-designated flanges - Part 2: Spiral wound gaskets for use with steel flanges*

Osnova: EN 1514-2:2014+A1:2021

ICS: 23.040.60, 23.040.80

This part of EN 1514 specifies the dimensions and marking of spiral wound gaskets for use in conjunction with flat face and raised face flanges complying with the requirements of EN 1092-1 for PN 10, PN 16, PN 25, PN 40, PN 63, PN 100 and PN 160 and up to and including DN 1 000.

NOTE 1 Dimensions of other types of gaskets for use with flanges to EN 1092-1, EN 1092-2, EN 1092-3 and EN 1092 4 are given in EN 1514-1, EN 1514-3, EN 1514-4, EN 1514-6, EN 1514-7 and EN 1514-8.

NOTE 2 Annex A lists information to be supplied by the purchaser when ordering gaskets in circumstances where the choice of the gasket materials appropriate to the service is left to the manufacturer.

## **SIST/TC VAZ Varovanje zdravja**

#### **SIST EN ISO 15854:2021**

SIST EN ISO 15854:2005

**2021-04** (po) (en) **28 str. (G)**

Zobozdravstvo - Voski za odlitke in podstavke (ISO 15854:2021)

*Dentistry - Casting and baseplate waxes (ISO 15854:2021)*

Osnova: EN ISO 15854:2021

ICS: 11.060.10

This document specifies the classification of and requirements for dental casting and dental baseplate waxes together with the test methods to be employed to determine compliance with these requirements.

This document does not apply to waxes supplied for additive manufacturing or CAD/CAM-based procedures.

## **SIST/TC VSN Varnost strojev in naprav**

#### **SIST EN 12463:2021**

SIST EN 12463:2015

**2021-04** (po) (en;fr;de) **69 str. (K)**

Stroji za predelavo hrane - Polnilniki in zamenjliva oprema - Varnostne in higienske zahteve

*Food processing machinery - Filling machines and interchangeable equipment - Safety and hygiene requirements*

Osnova: EN 12463:2021

ICS: 67.260

## 1.1 General

This document applies to:

- filling machines with cylinder and piston;
- filling machines with feed intake hopper;
- filling machines with vacuum hopper;

hereafter referred to as filling machines which process e.g. meat, cheese and other pasty substances, excluding dry or frozen materials. They pump foodstuff into casings or bring it to a following process.

This document applies also to the interchangeable equipment for filling machines with which a wide range of additional functions can be implemented. For example: portioning, depositing, mincing, co-extruding, dividing and forming.

This document deals with all significant hazards, hazardous situations and events relevant to filling machines and interchangeable equipment (hereafter referred to as machines), when they are used as intended and under the conditions foreseen by the manufacturer and also the reasonable foreseeable misuse (see Clause 4).

These significant hazards, hazardous situations and events can arise during all the life phases including transportation, assembly, dismantling, disabling and scrapping of the machines.

This document is not applicable to machines which were manufactured before the date of publication of this document by CEN.

Filling machines described in this document are no forming, filling and sealing machines as described in EN 415-5:1999+A1:2009. Clipping machines as described in EN 13885:2005+A1:2010 are not covered by this document.

## 1.2 Types of filling machines and interchangeable equipment covered by this standard

### 1.2.1 Filling machines with cylinder and piston

Filling machines with cylinder and piston consist of piston, closing cover, machine frame, accessory drive mechanism and electrical and hydraulic components (see Figure 1).

The material being processed will be fed by hand into the cylinder.

Filling machines with cylinder and piston can be fitted with a dividing device.

### 1.2.2 Filling machines with feed intake hopper

Filling machines with feed intake hopper (with or without infeed auger, see Figure 2) consist of feeder on the discharge side of the feed intake hopper, machine frame, drive mechanism for interchangeable equipment and electric, electronic or pneumatic components, depending on machine type.

The material being processed will be fed by hand (or optionally a loading device) into the feeding hopper of the filling machine.

Filling machines with feed intake hopper can be equipped with:

- dividing device;
- cover or photoelectric guard at the mouth of the feed intake hopper;
- pressure-sensitive protective device at the hopper edge;
- divided hopper;
- infeed auger;
- counter auger;
- step or ladder;
- two-hand control device at the mouth of the feed intake hopper;
- knee-operated lever switches or hand operated switches.

(...)

### 1.2.3 Filling machines with vacuum hopper

Filling machines with vacuum hopper (with or without infeed auger, see Figure 3) consist of suction pipe with storage container, feeder, vacuum hopper with locking device on the intake side, machine frame, drives for interchangeable equipment and electrical, electronic or pneumatic components, depending on the machinery category.

Filling machines with vacuum hoppers can be loaded by one or more of the following:

- manual loading;
- vacuum suction;
- feeder.

Filling machines with vacuum hoppers are to be switched on and off by lever switches operated by knee or hand and/or by remote control signals.

Filling machines with vacuum hoppers can be equipped with:



- dividing device;
- cover on vacuum hopper;
- infeed auger;
- counter auger;
- foot board or ladder;
- suction pipe and storage container.

(...)

#### 1.2.4 Interchangeable equipment for filling machines

Interchangeable equipment are devices which can be assembled to filling machinery by the operator in order to attribute one or more new functions such as: portioning, twisting, voiding, forming, mincing. (...)

#### **SIST EN 1672-2:2021**

SIST EN 1672-2:2005+A1:2009

**2021-04 (po) (en;fr;de) 69 str. (K)**

Stroji za predelavo hrane - Osnovni koncepti - 2. del: Higienске zahteve

*Food processing machinery - Basic concepts - Part 2: Hygiene requirements*

Osnova: EN 1672-2:2020

ICS: 67.260

This document specifies common hygiene requirements for machinery used in preparing and processing food for human and, where relevant, animal consumption to eliminate or minimise the risk of contagion, infection, illness or injury arising from this food. It identifies the hazards which are relevant to the use of such food processing machinery and describes design methods and information for use for the elimination or reduction of these risks.

This document does not deal with the hygiene related risks to personnel arising from the use of the machine.

This document applies to food processing machines – Examples of such groups of food processing machinery are given in an informative Annex of this standard.

In addition, the principles contained in this document can be applied to other machinery and equipment used to process food where similar risks apply. Examples of hygiene risks and acceptable solutions are given in an informative Annex in this standard.

#### **SIST EN 1804-1:2021**

SIST EN 1804-1:2002+A1:2010

**2021-04 (po) (en;fr;de) 50 str. (I)**

Stroji za podzemne rudnike - Varnostne zahteve za hidravlično podporje - 1. del: Podporne enote in splošne zahteve

*Machines for underground mines - Safety requirements for hydraulic powered roof supports - Part 1: Support units and general requirements*

Osnova: EN 1804-1:2020

ICS: 73.100.10

This document stipulates the safety requirements for the use of support units intended by the manufacturer or the manufacturer's authorized representative. Examples of support units are: frame supports, chock supports, shield supports, paired frames and push-pull support systems including the components of advancing and anchoring devices which provide support functions. This document excludes fixing elements on the conveyor, coal-winning equipment, power set legs and rams, valves, hydraulic and electro-hydraulic control units, lighting and signalling facilities and other ancillary equipment.

COMMENT Some components are discussed in other parts of this series of standards.

This document applies for support units that are used at ambient temperatures between -10 °C and 60 °C.

This document also applies to support components and support accessories which are provided if the support unit is fitted with stowing equipment. This document identifies and takes account of:

- the hazards that can possibly be induced through operation of the support units;
- the hazardous areas and the operating conditions that can cause any type of hazard;
- the situations that can result in hazards that cause an injury or impair health;

- dangers that can be caused through mine gas and/or flammable dusts.

This document describes methods for reducing these hazards.

Clause 4 contains a list of the hazards discussed.

This document does not specify any additional requirements for:

- a particularly corrosive environment;
- risks associated with manufacturing, transport and decommissioning;
- earthquake.

This document applies for all support units that have been placed on the market for the first time after the issue date of this standard.

#### **SIST EN 1804-2:2021**

SIST EN 1804-2:2002+A1:2010

**2021-04** (po) (en;fr;de) **42 str. (I)**

Stroji za podzemne rudnike - Varnostne zahteve za hidravlično podporje - 2. del: Hidravlične stojke in potisni hidravlični valji

*Machines for underground mines - Safety requirements for hydraulic powered roof supports - Part 2: Power set legs and rams*

Osnova: EN 1804-2:2020

ICS: 73.100.10

This document stipulates the safety requirements for use of legs and rams as intended by the manufacturer or the manufacturer's authorized representative. These include legs, support rams and rams, including the mechanical extensions, the inner valves and safety devices, seals, the hydraulic connections, (up to the 1st hose line or to the valve of design B, see Part 3) and their lifting points but excluding protective pipes and gaiters, external valves and hydraulic and electrohydraulic control systems.

NOTE Some components are discussed in other parts of this standard series.

This document applies for legs, support rams, and cylinders that are used at ambient temperatures between -10 °C and 60 °C.

This document identifies and takes account of:

- possible hazards which may be caused by the operation of legs, support rams and rams;
- the hazardous areas and the operating conditions that can cause any type of hazard;
- the situations that can result in hazards that cause an injury or impair health;
- dangers that can be caused through mine gas and/or flammable dusts.

This document describes methods for reducing these hazards.

Clause 4 contains a list of the hazards discussed.

This document does not specify any additional requirements for:

- specially corrosive environments;
- risks associated with manufacturing, transport, and decommissioning;
- earthquake.

This standard is applicable to all legs, support rams and rams placed on the market for the first time and which are manufactured after the date on which this standard was published.

#### **SIST EN 1804-3:2021**

SIST EN 1804-3:2006+A1:2010

**2021-04** (po) (en;fr;de) **43 str. (I)**

Stroji za podzemne rudnike - Varnostne zahteve za hidravlično podporje - 3. del: Hidravlični in elektrohidravlični krmilni sistemi

*Machines for underground mines - Safety requirements for hydraulic powered roof supports - Part 3: Hydraulic and electro hydraulic control systems*

Osnova: EN 1804-3:2020

ICS: 73.100.10

This document specifies the safety requirements for hydraulic and electro hydraulic control devices, including hydraulic valves and their control elements, valve combinations, control systems, pipes and hose assemblies, fittings, shut-off devices, measuring devices, filters, built-in pressure limiting and check valves in legs and rams and water spraying and dust suppression valves, as well emergency stop, start warning, locking- and control unit when used as specified by

the manufacturer or his authorized representative. Excluded are pressure generators, and internal valves of legs and rams (e.g. leg bottom valves, see EN 1804-2).

NOTE Some components are dealt with in other parts of this standard.

This document applies to hydraulic and electro hydraulic control devices at ambient temperatures from -10 °C to 60 °C.

This document identifies and takes into account:

- possible hazards which may be caused by the operation of hydraulic and electro hydraulic control devices;
- areas and operating conditions which may create such hazards;
- hazardous situations which may cause injury or may be damaging to health;
- hazards which may be caused by firedamp and/or combustible dusts.

This document describes methods for the reduction of these hazards.

A list of significant hazards covered appears in Clause 4.

This document does not specify any additional requirements for:

- use in particularly corrosive environments;
- hazards occurring during construction, transportation, decommissioning;
- earthquakes.

This document is applicable to all hydraulic and electro hydraulic control unit placed on the market for the first time and which are manufactured after the date on which this standard was published.

**SIST EN ISO 9902-6:2021**

SIST EN ISO 9902-6:2002  
SIST EN ISO 9902-6:2002/A1:2009  
SIST EN ISO 9902-6:2002/A2:2014

**2021-04 (po) (en;fr;de) 23 str. (F)**

Tekstilni stroji - Preskusni postopki za merjenje hrupa - 6. del: Stroji za izdelavo tkanin (ISO 9902-6:2018)

*Textile machinery - Noise test code - Part 6: Fabric manufacturing machinery (ISO 9902-6:2018)*

Osnova: EN ISO 9902-6:2021

ICS: 59.120.30, 17.140.20

This document covers the different types of weaving and knitting machines defined in ISO 5247 (all parts)[2] and ISO 7839[5], respectively.

It is applicable to:

full-width weaving machines with weft insertion by:

shuttles;

rigid, telescopic or flexible rapiers;

projectiles;

hydraulic (waterjet) or by pneumatic (airjet) nozzle;

narrow fabric weaving machines with weft insertion by shuttles or needles;

jacquard machines;

knitting machinery including:

circular knitting;

flat bed knitting;

warp knitting;

raschel;

cotton (flat weft weaving);

other fabric manufacturing machines e.g.:

multi-phase weaving machines;

circular weaving machines;

stitch bonding machines.

NOTE Because of the high requirements on measurement conditions, grade 1 methods are normally not feasible for textile machinery.

# SS EIT Strokovni svet za področja elektrotehnike, informacijske tehnologije in telekomunikacij

## SIST EN IEC 61563:2021

2021-04 (po) (en) 38 str. (H)

Instrumenti za zaščito pred sevanjem - Oprema za merjenje koncentracije aktivnosti radionuklidov, ki oddajajo gama žarke v živila (IEC 61563:2019)

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

Osnova: EN IEC 61563:2021

ICS: 13.280

This document applies to instruments used to measure the activity and/or activity concentration of gamma-emitting radionuclides in food and/or foodstuffs. This document applies to instruments used both gross count type instruments and pulse height analysing type instruments used in field conditions and in measurement facilities. This document does not apply to high-resolution spectrometers that use germanium detectors.

## SIST EN IEC 62244:2021

SIST EN 62244:2011

2021-04 (po) (en) 30 str. (G)

Instrumenti za zaščito pred sevanjem - Vgrajeni monitorji sevanja (RPM) za odkrivanje nedovoljenega prometa z radioaktivnimi in jedrskimi snovmi (IEC 62244:2019)

*Radiation protection instrumentation - Installed radiation portal monitors (RPMs) for the detection of illicit trafficking of radioactive and nuclear materials (IEC 62244:2019)*

Osnova: EN IEC 62244:2021

ICS: 13.280

This document defines the performance requirements of installed monitors used for the detection of gamma and neutron radiation emitters. These monitors are commonly known as radiation portal monitors or RPMs. They are used to monitor vehicles, cargo containers, people, or packages and are typically located at national and international border crossings. They may be used at any location where there is a need for this type of monitoring.

## SIST EN IEC 63047:2021

2021-04 (po) (en) 113 str. (N)

Jedrska merilna oprema - Podatkovni format za zajem digitalnih podatkov v obliki seznama, ki se uporablja za odkrivanje in merjenje sevanja (IEC 63047:2018 + COR1:2020)

*Nuclear instrumentation - Data format for list mode digital data acquisition used in radiation detection and measurement (IEC 63047:2018 + COR1:2020)*

Osnova: EN IEC 63047:2021

ICS: 17.240, 27.120.01

This document specifies the format of binary list-mode data at the output of digital data acquisition devices used for the detection and measurement of radiation. Such data acquisition devices may employ digital signal processors (DSP) and field-programmable gate arrays (FPGA) in combination with memory and a communication interface with a computer.

## SIST EN IEC 60352-7:2021

SIST EN 60352-7:2003

2021-04 (po) (en) 34 str. (H)

Spoji brez spajke - 7. del: Objemka vzmetnih spojk - Splošne zahteve, preskusne metode in praktični napotki (IEC 60352-7:2020)

*Solderless connections - Part 7: Spring clamp connections - General requirements, test methods and practical guidance (IEC 60352-7:2020)*

Osnova: EN IEC 60352-7:2021

ICS: 29.120.20

IEC 60352-7:2020 is available as <https://webstore.iec.ch/publication/68249> IEC 60352-7:2020 RLV which contains the International Standard and its Redline version, showing all changes of the technical content compared to the previous edition.

IEC 60352-7:2020 is applicable to spring clamp connections made with stripped wire without further preparation:

- solid conductors of 0,32 mm to 3,7 mm nominal diameter (0,08 mm<sup>2</sup> to 10 mm<sup>2</sup> cross-section), or
- stranded conductors of 0,08 mm<sup>2</sup> to 10 mm<sup>2</sup> cross-section, or
- flexible conductors of 0,08 mm<sup>2</sup> to 10 mm<sup>2</sup> cross-section,

according to IEC 60228 or IEC 60189-3 for use in electrical and electronic equipment and components.

Information on materials and data from industrial experience is included in addition to the test procedures to provide electrically stable connections under prescribed environmental conditions. The object of this document is to determine the suitability of spring clamp connections under specified mechanical, electrical and atmospheric conditions. This second edition cancels and replaces the first edition of IEC 60352-7, published in 2002. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- a) correction of the two flow charts in Figure 6 and Figure 7,
- b) split the content into more clauses for better separation between full test schedule and basic test schedule,
- c) relocating the content of former Clause 6 Practical guidance into an informative Annex A, as now common in the IEC 60352 series for solderless connections,
- d) clarification on conductor types with reference to classes defined in IEC 60228.

#### **SIST EN IEC 60747-17:2021/AC:2021**

**2021-04** (po) (en,fr) **3 str. (AC)**

Polprevodniški elementi - 17. del: Magnetni in kapacitivni spojnik za osnovno in ojačeno izolacijo - Popravek AC (IEC 60747-17:2020/COR1:2021)

*Semiconductor devices - Part 17: Magnetic and capacitive coupler for basic and reinforced insulation (IEC 60747-17:2020/COR1:2021)*

Osnova: EN IEC 60747-17:2020/AC:2021-02

ICS: 31.080.01

Popravek k standardu SIST EN IEC 60747-17:2021.

This part of IEC 60747 specifies the terminology, essential ratings, characteristics, safety test and the measuring methods of magnetic coupler and capacitive coupler.

It specifies the principles and requirements of insulation and isolation characteristics for magnetic and capacitive couplers for basic insulation and reinforced insulation.

#### **SIST EN IEC 61828:2021**

SIST EN 61828:2002

**2021-04** (po) (en) **115 str. (N)**

Ultrazvok - Pretvorniki - Definicije in merilne metode glede fokusiranja oddanih polj (IEC 61828:2020)

*Ultrasonics - Transducers - Definitions and measurement methods regarding focusing for the transmitted fields (IEC 61828:2020)*

Osnova: EN IEC 61828:2021

ICS: 11.040.55, 17.140.50

#### **IEC 61828:2020**

- provides definitions for the transmitted field characteristics of focusing and nonfocusing transducers for applications in medical ultrasound;
- relates these definitions to theoretical descriptions, design, and measurement of the transmitted fields of focusing transducers;
- gives measurement methods for obtaining defined field characteristics of focusing and nonfocusing transducers;
- specifies beam axis alignment methods appropriate for focusing and nonfocusing transducers.

IEC 61828:2021 relates to focusing ultrasonic transducers operating in the frequency range appropriate to medical ultrasound (0,5 MHz to 40 MHz) for both therapeutic and diagnostic applications. It shows how the characteristics of the transmitted field of transducers can be described from the point of view of design, as well as measured by someone with no prior knowledge of the construction details of a particular device. The transmitted ultrasound field for a specified excitation is measured by a hydrophone in either a standard test medium (for example, water) or in a given medium. This document applies only to media where the field behaviour is essentially like that in a fluid (i.e. where the influence of shear waves and elastic anisotropy is small), including soft tissues and tissue-mimicking gels. Any aspects of the field that affect their theoretical description or are important in design are also included. These definitions would have use in scientific communications, system design and description of the performance and safety of systems using these devices.

IEC 61828:2021 incorporates definitions from other related standards where possible, and supplies more specific terminology, both for defining focusing characteristics and for providing a basis for measurement of these characteristics.

IEC 61828:2021 cancels and replaces the first edition published in 2001. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Clause 6 on Measurement procedures has been replaced by Clause 6: "Acoustic field measurement: equipment" and Clause 7: "Measurement procedure" and related definitions.
- b) Reorganization of definitions and measurement section to accommodate specific sets of measurements for focusing, nonlinearity, beam axis alignment, beam area, beam maximum, numerical projection, plane wave, high intensity therapeutic ultrasound, multiple sources, spatial impulse response and compound plane waves. Clause 3 has been moved to Annex B.
- c) The normative references have been updated and the Bibliography has been expanded from 8 to 40 references.
- d) Twelve figures have been updated and seven new figures (B.1, B.3, B.7, B.10, B.11, B.12, B.13, B.14) have been added to facilitate measurements and be consistent with measurement terminology.
- e) New measurements have been added for time delays, arrays, plane waves and spatial impulse response.
- f) Annex A has been expanded to provide general guidance on pulsed waves, system responses, focusing gains and minimum beamwidth estimation.
- g) New annexes have been added:  
Annex B (informative) Rationale for focusing and nonfocusing definitions  
Annex E (informative) Uncertainties;  
Annex F (informative) Transducer and hydrophone positioning systems;

**SIST-TP CEN/TR 16234-2:2021**

SIST-TP CEN/TR 16234-2:2016

**2021-04**

**(po)**

**(en;fr;de)**

**57 str. (J)**

Krovni seznam e-usposobljenosti (e-CF) - Skupno evropsko okolje za strokovnjake na področju informacijske in komunikacijske tehnologije v vseh sektorjih - 2. del: Vodilo za uporabnike *e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all sectors - Part 2: User Guide*

Osnova: CEN/TR 16234-2:2021

ICS: 03.100.30, 35.020

This document supports understanding, adoption and use of EN 16234 (all parts) e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all sectors which provides a common reference of 41 ICT professional competences as required and applied in the Information and Communication Technology (ICT) professional work environment, using a common language for competences, skills, knowledge and proficiency levels that can be understood across Europe.

This document supports Information and Communication Technology (ICT) stakeholders dealing with ICT professional competences from multiple perspectives, in particular:

- ICT service, demand and supply organisations;

- ICT professionals, managers and human resource (HR) departments;
  - educational institutions, learning program and certification providers of all types including Vocational and Educational Training (VET), Higher Education (HE) and Continuous Professional Development (CPD);
  - social partners (trade unions and employer associations);
  - professional associations, accreditation, validation and assessment bodies;
  - market analysts and policy makers;
  - other organisations and stakeholders in public and private sectors across Europe,
- to adopt, apply and use the framework in their environment.

**2021-04** (po) (en;fr;de) **45 str. (I)**  
 Krovni seznam e-usposobljenosti (e-CF) - Skupno evropsko okolje za strokovnjake na področju informacijske in komunikacijske tehnologije v vseh sektorjih - 3. del: Metodologija  
*e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all sectors - Part 3: Methodology*  
 Osnova: CEN/TR 16234-3:2021  
 ICS: 03.100.30, 35.020

This Technical Report describes the methodology grounding for the development of the e-Competence Framework published as EN 16234-1. It supports methodological understanding of the e-CF by all interested parties and seeks to satisfy the needs of stakeholders from a competence frameworks construction or research environment.

**SIST-TP CEN/TR 16234-4:2021**  
**2021-04** (po) (en;fr;de) **55 str. (J)**  
 Krovni seznam e-usposobljenosti (e-CF) - Skupno evropsko okolje za strokovnjake na področju informacijske in komunikacijske tehnologije v vseh sektorjih - 4. del: Študije primerov  
*e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all sectors - Part 4: Case Studies*  
 Osnova: CEN/TR 16234-4:2021  
 ICS: 03.100.30, 35.020

This document provides a series of practical case studies supporting understanding, adoption and use of EN 16234 (all parts) e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all sectors which provides a common reference of 41 ICT professional competences as required and applied at the Information and Communication Technology (ICT) professional work environment, using a common language for competences, skills, knowledge and proficiency levels that can be understood across Europe.

This document supports Information and Communication Technology (ICT) stakeholders dealing with ICT Professional competences from multiple perspectives, in particular:

- ICT service, demand and supply organisations;
  - ICT professionals, managers and human resource (HR) departments;
  - educational institutions, learning program and certification providers of all types including Vocational and Educational Training (VET), Higher Education (HE) and Continuous Professional Development (CPD);
  - social partners (trade unions and employer associations);
  - professional associations, accreditation, validation and assessment bodies;
  - market analysts and policy makers;
  - other organizations and stakeholders in public and private sectors across Europe,
- to adopt, apply and use the framework in their environment.

## SS SPL Strokovni svet SIST za splošno področje

### SIST EN 17444:2021

2021-04 (po) (en;fr;de) 19 str. (E)

Preprečevanje uporabe nedovoljenih snovi v športu - Dobre prakse za razvoj in proizvodnjo z namenom preprečevanja prisotnosti prepovedanih snovi v hrani za športnike in v prehranskih dopolnilih

*Doping prevention in sport - Good development and manufacturing practices aimed at preventing the presence of prohibited substances in food intended for sportspeople and food supplements*

Osnova: EN 17444:2021

ICS: 67.040

This document sets out the requirements relative to the development and manufacture of food intended for sports people and food supplements to reduce the risk of the presence - without fully guarantying the absence - of substances prohibited by the World Anti-Doping Agency (WADA) [5].

This document specifies a framework of good practices with the objective of preventing the presence of substances prohibited in sport in food intended for sports people and food supplements.

This document does not lead to any form of product endorsement.

This document excludes the so-called "energy drinks".

### SIST EN ISO 11929-1:2021

2021-04 (po) (en;fr;de) 50 str. (I)

Ugotavljanje karakterističnih mej (odločitveni prag, zaznavanje meje in omejitve intervala pokritja) pri meritvah ionizirnega sevanja - Osnove in uporaba - 1. del: Osnovne aplikacije (ISO 11929-1:2019)

*Determination of the characteristic limits (decision threshold, detection limit and limits of the coverage interval) for measurements of ionizing radiation - Fundamentals and application - Part 1: Elementary applications (ISO 11929-1:2019)*

Osnova: EN ISO 11929-1:2021

ICS: 17.240

The ISO 11929 series specifies a procedure, in the field of ionizing radiation metrology, for the calculation of the "decision threshold", the "detection limit" and the "limits of the coverage interval" for a non-negative ionizing radiation measurand when counting measurements with preselection of time or counts are carried out. The measurand results from a gross count rate and a background count rate as well as from further quantities on the basis of a model of the evaluation. In particular, the measurand can be the net count rate as the difference of the gross count rate and the background count rate, or the net activity of a sample. It can also be influenced by calibration of the measuring system, by sample treatment and by other factors.

ISO 11929 has been divided into four parts covering elementary applications in this document, advanced applications on the basis of the ISO/IEC Guide 3-1 in ISO 11929-2, applications to unfolding methods in ISO 11929-3, and guidance to the application in ISO 11929-4.

This document covers basic applications of counting measurements frequently used in the field of ionizing radiation metrology. It is restricted to applications for which the uncertainties can be evaluated on the basis of the ISO/IEC Guide 98-3 (JCGM 2008). In Annex A, the special case of repeated counting measurements with random influences is covered, while measurements with linear analogous ratemeters are covered in Annex B.

ISO 11929-2 extends the former ISO 11929:2010 to the evaluation of measurement uncertainties according to the ISO/IEC Guide 98-3-1. ISO 11929-2 also presents some explanatory notes regarding general aspects of counting measurements and on Bayesian statistics in measurements.

ISO 11929-3 deals with the evaluation of measurements using unfolding methods and counting spectrometric multi-channel measurements if evaluated by unfolding methods, in particular, for alpha- and gamma-spectrometric measurements. Further, it provides some advice on how to deal with correlations and covariances.

ISO 11929-4 gives guidance to the application of the ISO 11929 series, summarizes shortly the general procedure and then presents a wide range of numerical examples. Information on the statistical roots of ISO 11929 and on its current development may be found elsewhere[33][34].



The ISO 11929 series also applies analogously to other measurements of any kind especially if a similar model of the evaluation is involved. Further practical examples can be found, for example, in ISO 18589[1], ISO 9696[2], ISO 9697[3], ISO 9698[4], ISO 10703[5], ISO 7503[6], ISO 28218[7], and ISO 11665[8].

NOTE A code system, named UncertRadio, is available for calculations according to ISO 11929-1 to ISO 11929-5. UncertRadio[31][32] can be downloaded for free from <https://www.thuenen.de/de/fi/arbeitsbereiche/meeresumwelt/leitstelle-umweltradioaktivitaet-in-fisch/uncertradio/>. The download contains a setup installation file which copies all files and folders into a folder specified by the user. After installation one has to add information to the PATH of Windows as indicated by a pop-up window during installation. English language can be chosen and extensive "help" information is available.

## **SIST EN ISO 11929-2:2021**

**2021-04** (po) (en;fr;de) 49 str. (I)

Ugotavljanje karakterističnih mej (odločitveni prag, zaznavanje meje in omejitev intervala pokritja) pri meritvah ionizirnega sevanja - Osnove in uporaba - 2. del: Napredne aplikacije (ISO 11929-2:2019) *Determination of the characteristics limits (decision threshold, detection limit and limits of the coverage interval) for measurements of ionizing radiation - Fundamentals and application - Part 2: Advanced applications (ISO 11929-2:2019)*

Osnova: EN ISO 11929-2:2021

ICS: 17.240

The ISO 11929 series specifies a procedure, in the field of ionizing radiation metrology, for the calculation of the "decision threshold", the "detection limit" and the "limits of the coverage interval" for a non-negative ionizing radiation measurand when counting measurements with preselection of time or counts are carried out. The measurand results from a gross count rate and a background count rate as well as from further quantities on the basis of a model of the evaluation. In particular, the measurand can be the net count rate as the difference of the gross count rate and the background count rate, or the net activity of a sample. It can also be influenced by calibration of the measuring system, by sample treatment and by other factors.

ISO 11929 has been divided into four parts covering elementary applications in ISO 11929-1, advanced applications on the basis of the GUM Supplement 1 in this document, applications to unfolding methods in ISO 11929-3, and guidance to the application in ISO 11929-4.

ISO 11929-1 covers basic applications of counting measurements frequently used in the field of ionizing radiation metrology. It is restricted to applications for which the uncertainties can be evaluated on the basis of the ISO/IEC Guide 98-5 (JCGM 2008). In Annex A of ISO 11929-1:2019 the special case of repeated counting measurements with random influences is covered, while measurements with linear analogous ratemeters are covered in Annex B of ISO 11929-1:2019.

This document extends the former ISO 11929:2010 to the evaluation of measurement uncertainties according to the ISO/IEC Guide 98-5-1. It also presents some explanatory notes regarding general aspects of counting measurements and on Bayesian statistics in measurements.

ISO 11929-3 deals with the evaluation of measurements using unfolding methods and counting spectrometric multi-channel measurements if evaluated by unfolding methods, in particular, for alpha- and gamma-spectrometric measurements. Further, it provides some advice on how to deal with correlations and covariances.

ISO 11929-4 gives guidance to the application of ISO 11929, summarizes shortly the general procedure and then presents a wide range of numerical examples. Information on the statistical roots of ISO 11929 and on its current development may be found elsewhere[30,31].

ISO 11929 also applies analogously to other measurements of any kind especially if a similar model of the evaluation is involved. Further practical examples can be found, for example, in ISO 18589[1], ISO 9696[2], ISO 9697[3], ISO 9698[4], ISO 10703[5], ISO 7503[6], ISO 28218[7], and ISO 11885[8].

NOTE A code system, named UncertRadio, is available for calculations according to ISO 11929-1 to ISO 11929-5. UncertRadio[27][28] can be downloaded for free from <https://www.thuenen.de/en/fi/fields-of-activity/marine-environment/coordination-centre-of-radioactivity/uncertradio/>. The download contains a setup installation file which copies all files and folders into a folder specified by the user. After installation one has to add information to the

PATH of Windows as indicated by a pop-up window during installation. English language can be chosen and extensive "help" information is available. . Another tool is the package 'metRology'[52] which is available for programming in R. It contains the two R functions 'uncert' and 'uncertMC' which perform the GUM conform uncertainty propagation, either analytically or by the Monte Carlo method, respective

#### **SIST EN ISO 11929-3:2021**

**2021-04** (po) (en;fr;de) **48 str. (I)**

Ugotavljanje karakterističnih mej (odločitveni prag, zaznavanje meje in omejitev intervala pokritja) pri meritvah ionizirnega sevanja - Osnove in uporaba - 3. del: Uporaba metod odkrivanja (ISO 11929-3:2019)

*Determination of the characteristic limits (decision threshold, detection limit and limits of the coverage interval) for measurements of ionizing radiation - Fundamentals and application - Part 3: Applications to unfolding methods (ISO 11929-3:2019)*

Osnova: EN ISO 11929-3:2021

ICS: 17.240

The ISO 11929 series specifies a procedure, in the field of ionizing radiation metrology, for the calculation of the "decision threshold", the "detection limit" and the "limits of the coverage interval" for a non-negative ionizing radiation measurand when counting measurements with preselection of time or counts are carried out. The measurand results from a gross count rate and a background count rate as well as from further quantities on the basis of a model of the evaluation. In particular, the measurand can be the net count rate as the difference of the gross count rate and the background count rate, or the net activity of a sample. It can also be influenced by calibration of the measuring system, by sample treatment and by other factors.

ISO 11929 has been divided into four parts covering elementary applications in ISO 11929-1, advanced applications on the basis of the ISO/IEC Guide 98-3-1 in ISO 11929-2, applications to unfolding methods in this document, and guidance to the application in ISO 11929-4.

ISO 11929-1 covers basic applications of counting measurements frequently used in the field of ionizing radiation metrology. It is restricted to applications for which the uncertainties can be evaluated on the basis of the ISO/IEC Guide 98-3 (JCGM 2008). In Annex A of ISO 11929-1:2019, the special case of repeated counting measurements with random influences is covered, while measurements with linear analogous ratemeters, are covered in Annex B of ISO 11929-1:2019.

ISO 11929-2 extends the former ISO 11929:2010 to the evaluation of measurement uncertainties according to the ISO/IEC Guide 98-3-1. ISO 11929-2 also presents some explanatory notes regarding general aspects of counting measurements and on Bayesian statistics in measurements. This document deals with the evaluation of measurements using unfolding methods and counting spectrometric multi-channel measurements if evaluated by unfolding methods, in particular, for alpha- and gamma-spectrometric measurements. Further, it provides some advice on how to deal with correlations and covariances.

ISO 11929-4 gives guidance to the application of the ISO 11929 series, summarizes shortly the general procedure and then presents a wide range of numerical examples.

ISO 11929 Standard also applies analogously to other measurements of any kind especially if a similar model of the evaluation is involved. Further practical examples can be found, for example, in ISO 18589[7], ISO 9696[2], ISO 9697[3], ISO 9698[4], ISO 10703[5], ISO 7503[1], ISO 28218[8], and ISO 11665[6].

NOTE A code system, named UncertRadio, is available for calculations according to ISO 11929- 1 to ISO 11929-5. UncertRadio[35][36] can be downloaded for free from <https://www.thuenen.de/en/fi/fields-of-activity/marine-environment/coordination-centre-of-radioactivity/uncertradio/>. The download contains a setup installation file which copies all files and folders into a folder specified by the user. After installation one has to add information to the PATH of Windows as indicated by a pop-up window during installation. English language can be chosen and extensive "help" information is available.

**SIST EN ISO 12807:2021****2021-04 (po) (en;fr;de) 94 str. (M)**Varen prevoz radioaktivnih snovi - Preskušanje tesnjenja embalaže (ISO 12807:2018)  
*Safe transport of radioactive materials - Leakage testing on packages (ISO 12807:2018)*

Osnova: EN ISO 12807:2021

ICS: 27.120.30, 13.280

This document specifies gas leakage test criteria and test methods for demonstrating that packages used to transport radioactive materials comply with the package containment requirements defined in the International Atomic Energy Agency (IAEA) Regulations for the Safe Transport of Radioactive Material for:

- design verification;
- fabrication verification;
- preshipment verification;
- periodic verification;
- maintenance verification.

This document describes a method for relating permissible activity release of the radioactive contents carried within a containment system to equivalent gas leakage rates under specified test conditions. This approach is called gas leakage test methodology. However, in this document it is recognized that other methodologies might be acceptable, provided that they demonstrate that any release of the radioactive contents will not exceed the regulatory requirements, and subject to agreement with the competent authority.

This document provides both overall and detailed guidance on the complex relationships between an equivalent gas leakage test and a permissible activity release rate. Whereas the overall guidance is universally agreed upon, the use of the detailed guidance shall be agreed upon with the competent authority during the Type B(U), Type B(M) or Type C packages certification process.

It should be noted that, for a given package, demonstration of compliance is not limited to a single methodology.

While this document does not require particular gas leakage test procedures, it does present minimum requirements for any test that is to be used. It is the responsibility of the package designer or consignor to estimate or determine the maximum permissible release rate of radioactivity to the environment and to select appropriate leakage test procedures that have adequate sensitivity.

This document pertains specifically to Type B(U), Type B(M) or Type C packages for which the regulatory containment requirements are specified explicitly.

**SIST EN ISO 14146:2021****2021-04 (po) (en;fr;de) 19 str. (E)**

Radiološka zaščita - Merila in meje učinkovitosti za periodično ovrednotenje dozimetričnih storitev (ISO 14146:2018)

*Radiological protection - Criteria and performance limits for the periodic evaluation of dosimetry services (ISO 14146:2018)*

Osnova: EN ISO 14146:2021

ICS: 13.280

The quality of a supplier of a dosimetry service depends on both the characteristics of the approved (type-tested) dosimetry system[1] and the training and experience of the staff, together with the calibration procedures and quality assurance programmes.

This document specifies the criteria and the test procedures to be used for the periodic verification of the performance of dosimetry services supplying personal and/or area dosimeters.

An area dosimeter can be a workplace dosimeter or an environmental dosimeter.

The performance evaluation can be carried out as a part of the approval procedure for a dosimetry system or as an independent check to verify that a dosimetry service fulfils specified national or international type test performance requirements under representative exposure conditions that are expected or mimic workplace fields from the radiological activities being monitored.

This document applies to personal and area dosimeters for the assessment of external photon radiation with a (fluence weighted) mean energy between 8 keV and 10 MeV, beta radiation with a

(fluence weighted) mean energy between 60 keV and 1,2 MeV, and neutron radiation with a (fluence weighted) mean energy between 25,3 meV (i.e. thermal neutrons with a Maxwellian energy distribution with  $kT = 25,3$  meV) and 200 MeV.

It covers all types of personal and area dosimeters needing laboratory processing (e.g. thermoluminescent, optically stimulated luminescence, radiophotoluminescent, track detectors or photographic-film dosimeters) and involving continuous measurements or measurements repeated regularly at fixed time intervals (e.g. several weeks, one month).

Active dosimeters (for dose measurement) may also be treated according to this document. Then, they should be treated as if they were passive (i.e. the dosimetry service reads their indicated values and reports them to the evaluation organization).

[1] If this document is applied to a dosimetry system for which no approval (pattern or type test) has been provided, then in the following text approval or type test should be read as the technical data sheet provided by the manufacturer or as the data sheet required by the regulatory authority.

### **SIST EN ISO 14644-17:2021**

**2021-04** (po) (en) **35 str. (H)**

Čiste sobe in podobna nadzorovana okolja - 17. del: Aplikacije glede hitrosti usedanja delcev (ISO 14644-17:2021)

*Cleanrooms and associated controlled environments - Part 17: Particle deposition rate applications (ISO 14644-17:2021)*

Osnova: EN ISO 14644-17:2021

ICS: 13.040.35

This document gives direction on the interpretation and application of the results of the measurement of particle deposition rate on one or more vulnerable surfaces in a cleanroom as part of a contamination control programme. It provides some instructions on how to influence the particle deposition rate and reduce the risk of particle contamination on vulnerable surfaces.

This document gives information on how a cleanroom user can use the particle deposition rate measurements to determine limits that can be set for macroparticles on vulnerable surfaces. It also gives a risk assessment method by which an acceptable risk of deposition of particles onto vulnerable surfaces in a cleanroom can be established and, when this is not achieved, methods that can be used to reduce the particle deposition rate.

An alternative to the particle deposition rate is the particle obscuration rate which determines the rate of increase of coverage of particles onto an area of surface over time. The particle obscuration rate can be used in an analogous way to the particle deposition rate and the required particle obscuration rate for a specified surface can be calculated and the risk from deposited particles reduced.

This document does not:

- provide a method to classify a cleanroom with respect to particle deposition rate or particle obscuration rate;
- directly consider the deposition of microbe-carrying particles, although they can be treated as particles;
- give any consideration to surface deposition by contact as, for example, when personnel touch a product and contamination is transferred.

### **SIST EN ISO 16793:2021**

**2021-04** (po) (en;fr;de) **15 str. (D)**

Tehnologija jedrskih goriv - Smernice za pripravo keramografske preiskave mikrostrukture za sintrane pelete UO<sub>2</sub> (ISO 16793:2018)

*Nuclear fuel technology - Guidelines for ceramographic preparation of UO<sub>2</sub> sintered pellets for microstructure examination (ISO 16793:2018)*

Osnova: EN ISO 16793:2021

ICS: 27.120.30

This document describes the ceramographic preparation of uranium dioxide (UO<sub>2</sub>) sintered pellets for qualitative and quantitative microstructure examinations.

These examinations can be carried out before and after thermal or chemical etching.

They enable

- observations of fissures, inter- or intra-granular pores and inclusions, and
- measurement of pore and grain size and measurement of pore and grain size distributions.

The measurement of average grain size can be carried out using a classical counting method as described in ISO 2624 or ASTM E112[5], i.e. intercept procedure, comparison with standard grids or reference photographs.

The measurement of pore-size distributions is usually carried out by an automatic image analyser. If the grain-size distributions are also measured with an image analyser, it is recommended that thermal etching be used to reveal the grain structure uniformly throughout the whole sample.

#### **SIST EN ISO 18256-1:2021**

**2021-04** (po) (en;fr;de) **15 str. (D)**

Tehnologija jedrskih goriv - Raztapljanje materialov, ki vsebujejo plutonijev dioksid - 1. del: Raztapljanje praškov plutonijevega dioksida (ISO 18256-1:2019)

*Nuclear fuel technology - Dissolution of plutonium dioxide-containing materials - Part 1: Dissolution of plutonium dioxide powders (ISO 18256-1:2019)*

Osnova: EN ISO 18256-1:2021

ICS: 27.120.30

This document specifies the dissolution of powder samples of plutonium oxide for subsequent determination of elemental concentration and isotopic composition.

#### **SIST EN ISO 18256-2:2021**

**2021-04** (po) (en;fr;de) **15 str. (D)**

Tehnologija jedrskih goriv - Raztapljanje materialov, ki vsebujejo plutonijev dioksid - 2. del: Raztapljanje peletov in praškov MOX (ISO 18256-2:2019)

*Nuclear fuel technology - Dissolution of plutonium dioxide-containing materials - Part 2: Dissolution of MOX pellets and powders (ISO 18256-2:2019)*

Osnova: EN ISO 18256-2:2021

ICS: 27.120.30

This document specifies the dissolution of samples consisting of MOX pellets or powders to provide suitable aliquots for subsequent analysis of elemental concentration and isotopic composition.

#### **SIST EN ISO 20046:2021**

**2021-04** (po) (en;fr;de) **50 str. (I)**

Radiološka zaščita - Merila za delovanje laboratorijev, ki uporabljajo preskus translokacije fluorescenčne hibridizacije in-situ (FISH) za oceno izpostavljenosti ionizirnemu sevanju (ISO 20046:2019)

*Radiological protection - Performance criteria for laboratories using Fluorescence In Situ Hybridization (FISH) translocation assay for assessment of exposure to ionizing radiation (ISO 20046:2019)*

Osnova: EN ISO 20046:2021

ICS: 13.280

The purpose of this document is to provide criteria for quality assurance (QA), quality control (QC) and evaluation of the performance of biological dosimetry by cytogenetic service laboratories.

This document addresses:

- a) the responsibilities of both the customer and the laboratory;
- b) the confidentiality of personal information, for the customer and the laboratory;
- c) the laboratory safety requirements;
- d) sample processing; culturing, staining and scoring, including the criteria for scoring for translocation analysis by FISH;
- e) the calibration sources and calibration dose ranges useful for establishing the reference dose-response curves that contribute to the dose estimation from chromosome aberration frequency and the detection limit;

- f) the scoring procedure for translocations stained by FISH used for evaluation of exposure;
- g) the criteria for converting a measured aberration frequency into an estimate of absorbed dose (also appears as "dose");
- h) the reporting of results;
- i) the QA and QC;
- j) Annexes A to F containing sample instructions for the customer, sample questionnaire, sample datasheet for recording aberrations, sample of report and fitting of the low dose-response curve by the method of maximum likelihood and calculating the uncertainty of dose estimate.

**SIST EN ISO 28057:2021**

SIST EN ISO 28057:2018

**2021-04 (po) (en;fr;de) 51 str. (J)**

Klinična dozimetrija - Dozimetrija s trdnimi termoluminiscenčnimi zaznavali pri fotonih in elektronskih sevanjih v radioterapiji (ISO 28057:2019)

*Clinical dosimetry - Dosimetry with solid thermoluminescence detectors for photon and electron radiations in radiotherapy (ISO 28057:2019)*

Osnova: EN ISO 28057:2021

ICS: 13.280

This document describes rules for the procedures, applications, and systems of thermoluminescence dosimetry (TLD) for dose measurements according to the probe method. It is particularly applicable to solid "TL detectors", i.e. rods, chips, and microcubes, made from LiF:Mg,Ti or LiF:Mg,Cu,P in crystalline or polycrystalline form. It is not applicable to LiF powders because their use requires special procedures. The probe method encompasses the arrangement, particularly in a water phantom or in a tissue-equivalent phantom, of single TL detectors or of "TL probes", i.e. sets of TL detectors arranged in thin-walled polymethyl methacrylate (PMMA) casings. The purpose of these rules is to guarantee the reliability and the accuracy indispensable in clinical dosimetry when applied on or in the patient or phantom. This document applies to dosimetry in teletherapy with both photon radiation from 20 keV to 50 MeV and electron radiation from 4 MeV to 25 MeV, as well as in brachytherapy with photon-emitting radionuclides. These applications are complementary to the use of ionization chambers.

**SIST EN ISO 4037-1:2021**

**2021-04 (po) (en;fr;de) 56 str. (J)**

Radiološka zaščita - Referenčno sevanje z rentgenskimi in gama žarki za kalibracijo dozimetrov in merilnikov doze sevanja ter za ugotavljanje njihovega odzivanja kot funkcije fotonske energije - 1. del: Značilnosti sevanja in proizvodne metode (ISO 4037-1:2019)

*Radiological protection - X and gamma reference radiation for calibrating dosimeters and dose rate meters and for determining their response as a function of photon energy - Part 1: Radiation characteristics and production methods (ISO 4037-1:2019)*

Osnova: EN ISO 4037-1:2021

ICS: 13.280, 17.240

This document specifies the characteristics and production methods of X and gamma reference radiation for calibrating protection-level dosimeters and dose rate meters with respect to the phantom related operational quantities of the International Commission on Radiation Units and Measurements (ICRU)[5]. The lowest air kerma rate for which this standard is applicable is 1 µGy h<sup>-1</sup>. Below this air kerma rate the (natural) background radiation needs special consideration and this is not included in this document.

For the radiation qualities specified in Clauses 4 to 6, sufficient published information is available to specify the requirements for all relevant parameters of the matched or characterized reference fields in order to achieve the targeted overall uncertainty (k = 2) of about 6 % to 10 % for the phantom related operational quantities. The X ray radiation fields described in the informative Annexes A to C are not designated as reference X-radiation fields.

NOTE The first edition of ISO 4037-1, issued in 1996, included some additional radiation qualities for which such published information is not available. These are fluorescent radiations, the gamma radiation of the radionuclide <sup>241</sup>Am, S-Am, and the high energy photon radiations R-Ti

and R-Ni, which have been removed from the main part of this document. The most widely used radiations, the fluorescent radiations and the gamma radiation of the radionuclide <sup>241</sup>Am, S-Am, are included nearly unchanged in the informative Annexes A and B. The informative Annex C gives additional X radiation fields, which are specified by the quality index.

The methods for producing a group of reference radiations for a particular photon-energy range are described in Clauses 4 to 6, which define the characteristics of these radiations. The three groups of reference radiation are:

- a) in the energy range from about 8 keV to 330 keV, continuous filtered X radiation;
- b) in the energy range 600 keV to 1,3 MeV, gamma radiation emitted by radionuclides;
- c) in the energy range 4 MeV to 9 MeV, photon radiation produced by accelerators.

The reference radiation field most suitable for the intended application can be selected from Table 1, which gives an overview of all reference radiation qualities specified in Clauses 4 to 6. It does not include the radiations specified in the Annexes A, B and C.

The requirements and methods given in Clauses 4 to 6 are targeted at an overall uncertainty ( $k = 2$ ) of the dose(rate) value of about 6 % to 10 % for the phantom related operational quantities in the reference fields. To achieve this, two production methods are proposed:

The first one is to produce "matched reference fields", whose properties are sufficiently well-characterized so as to allow the use of the conversion coefficients recommended in ISO 4037-3. The existence of only a small difference in the spectral distribution of the "matched reference field" compared to the nominal reference field is validated by procedures, which are given and described in detail in ISO 4037-2. For matched reference radiation fields, recommended conversion coefficients are given in ISO 4037-3 only for specified distances between source and dosimeter, e.g., 1,0 m and 2,5 m. For other distances, the user has to decide if these conversion coefficients can be used. If both values are very similar, e.g., differ only by 2 % or less, then a linear interpolation may be used.

The second method is to produce "characterized reference fields"

#### **SIST EN ISO 4037-2:2021**

**2021-04** (po) (en;fr;de) **36 str. (H)**

Radiološka zaščita - Referenčno sevanje z rentgenskimi in gama žarki za kalibracijo dozimetrov in merilnikov doze sevanja ter za ugotavljanje njihovega odzivanja kot funkcije fotonske energije - 2. del: Dozimetrija za zaščito pred sevanjem v energijskem območju od 8 keV do 1,3 MeV in od 4 MeV do 9 MeV (ISO 4037-2:2019)

*Radiological protection - X and gamma reference radiation for calibrating dosimeters and doserate meters and for determining their response as a function of photon energy - Part 2: Dosimetry for radiation protection over the energy ranges from 8 keV to 1,3 MeV and 4 MeV to 9 MeV (ISO 4037-2:2019)*

Osnova: EN ISO 4037-2:2021

ICS: 13.280, 17.240

This document specifies the procedures for the dosimetry of X and gamma reference radiation for the calibration of radiation protection instruments over the energy range from approximately 8 keV to 1,3 MeV and from 4 MeV to 9 MeV and for air kerma rates above 1  $\mu$ Gy/h. The considered measuring quantities are the air kerma free-in-air,  $K_a$ , and the phantom related operational quantities of the International Commission on Radiation Units and Measurements (ICRU)[2],  $H^*(10)$ ,  $H_p(10)$ ,  $H'(3)$ ,  $H_p(3)$ ,  $H'(0,07)$  and  $H_p(0,07)$ , together with the respective dose rates. The methods of production are given in ISO 4037-1.

This document can also be used for the radiation qualities specified in ISO 4037-1:2019, Annexes A, B and C, but this does not mean that a calibration certificate for radiation qualities described in these annexes is in conformity with the requirements of ISO 4037.

The requirements and methods given in this document are targeted at an overall uncertainty ( $k = 2$ ) of the dose(rate) of about 6 % to 10 % for the phantom related operational quantities in the reference fields. To achieve this, two production methods of the reference fields are proposed in ISO 4037-1.

The first is to produce "matched reference fields", which follow the requirements so closely that recommended conversion coefficients can be used. The existence of only a small difference in the spectral distribution of the "matched reference field" compared to the nominal reference field is

validated by procedures, which are given and described in detail in this document. For matched reference radiation fields, recommended conversion coefficients are given in ISO 4037-3 only for specified distances between source and dosimeter, e.g., 1,0 m and 2,5 m. For other distances, the user has to decide if these conversion coefficients can be used.

The second method is to produce "characterized reference fields". Either this is done by determining the conversion coefficients using spectrometry, or the required value is measured directly using secondary standard dosimeters. This method applies to any radiation quality, for any measuring quantity and, if applicable, for any phantom and angle of radiation incidence. The conversion coefficients can be determined for any distance, provided the air kerma rate is not below 1  $\mu\text{Gy/h}$ .

Both methods require charged particle equilibrium for the reference field. However this is not always established in the workplace field for which the dosimeter shall be calibrated. This is especially true at photon energies without inherent charged particle equilibrium at the reference depth  $d$ , which depends on the actual combination of energy and reference depth  $d$ . Electrons of energies above 65 keV, 0,75 MeV and 2,1 MeV can just penetrate 0,07 mm, 3 mm and 10 mm of ICRU tissue, respectively, and the radiation qualities with photon energies above these values are considered as radiation qualities without inherent charged particle equilibrium for the quantities defined at these depths.

This document is not applicable for the dosimetry of pulsed reference fields.

### **SIST EN ISO 4037-3:2021**

**2021-04** (po) (en;fr;de) 77 str. (L)

Radiološka zaščita - Referenčno sevanje z rentgenskimi in gama žarki za kalibracijo dozimetrov in merilnikov doze sevanja ter za ugotavljanje njihovega odzivanja kot funkcije fotonske energije - 3. del: Kalibriranje zunanjih in osebnih dozimetrov ter merjenje njihovega odzivanja kot funkcije energije in vpadnega kota (ISO 4037-3:2019)

*Radiological protection - X and gamma reference radiation for calibrating dosimeters and doserate meters and for determining their response as a function of photon energy - Part 3: Calibration of area and personal dosimeters and the measurement of their response as a function of energy and angle of incidence (ISO 4037-3:2019)*

Osnova: EN ISO 4037-3:2021

ICS: 13.280, 17.240

This document specifies additional procedures and data for the calibration of dosimeters and doserate meters used for individual and area monitoring in radiation protection. The general procedure for the calibration and the determination of the response of radiation protection dose(rate)meters is described in ISO 29661 and is followed as far as possible. For this purpose, the photon reference radiation fields with mean energies between 8 keV and 9 MeV, as specified in ISO 4037-1, are used. In Annex D some additional information on reference conditions, required standard test conditions and effects associated with electron ranges are given. For individual monitoring, both whole body and extremity dosimeters are covered and for area monitoring, both portable and installed dose(rate)meters are covered.

Charged particle equilibrium is needed for the reference fields although this is not always established in the workplace fields for which the dosimeter should be calibrated. This is especially true at photon energies without inherent charged particle equilibrium at the reference depth  $d$ , which depends on the actual combination of energy and reference depth  $d$ . Electrons of energies above 65 keV, 0,75 MeV and 2,1 MeV can just penetrate 0,07 mm, 3 mm and 10 mm of ICRU tissue, respectively, and the radiation qualities with photon energies above these values are considered as radiation qualities without inherent charged particle equilibrium for the quantities defined at these depths. This document also deals with the determination of the response as a function of photon energy and angle of radiation incidence. Such measurements can represent part of a type test in the course of which the effect of further influence quantities on the response is examined.

This document is only applicable for air kerma rates above 1  $\mu\text{Gy/h}$ .

This document does not cover the in-situ calibration of fixed installed area dosimeters.

The procedures to be followed for the different types of dosimeters are described. Recommendations are given on the phantom to be used and on the conversion coefficients to be applied. Recommended conversion coefficients are only given for matched reference radiation



fields, which are specified in ISO 4037-1:2019, Clauses 4 to 6. ISO 4037-1:2019, Annexes A and B, both informative, include fluorescent radiations, the gamma radiation of the radionuclide <sup>241</sup>Am, <sup>241</sup>S-Am, for which detailed published information is not available. ISO 4037-1:2019, Annex C, gives additional X radiation fields, which are specified by the quality index. For all these radiation qualities, conversion coefficients are given in Annexes A to C, but only as a rough estimate as the overall uncertainty of these conversion coefficients in practical reference radiation fields is not known.

NOTE The term dosemeter is used as a generic term denoting any dose or dose rate meter for individual or area monitoring.

#### **SIST EN ISO 4037-4:2021**

**2021-04** (po) (en;fr;de) **26 str. (F)**

Radiološka zaščita - Referenčno sevanje z rentgenskimi in gama žarki za kalibracijo dozimetrov in merilnikov doze sevanja ter za ugotavljanje njihovega odzivanja kot funkcije fotonske energije - 4. del: Kalibriranje zunanjih in osebnih dozimetrov v območjih z nizko energijo rentgenskega referenčnega sevanja (ISO 4037-4:2019)

*Radiological protection - X and gamma reference radiation for calibrating doseimeters and dose rate meters and for determining their response as a function of photon energy - Part 4: Calibration of area and personal doseimeters in low energy X reference radiation fields (ISO 4037-4:2019)*

Osnova: EN ISO 4037-4:2021

ICS: 13.280, 17.240

This document gives guidelines on additional aspects of the characterization of low energy photon radiations and on the procedures for calibration and determination of the response of area and personal dose(rate)meters as a function of photon energy and angle of incidence. This document concentrates on the accurate determination of conversion coefficients from air kerma to Hp(10), H\*(10), Hp(5) and H'(5) and for the spectra of low energy photon radiations. As an alternative to the use of conversion coefficients the direct calibration in terms of these quantities by means of appropriate reference instruments is described.

#### **SIST EN ISO 8299:2021**

**2021-04** (po) (en;fr;de) **33 str. (H)**

Tehnologija jedrskih goriv - Ugotavljanje deleža izotopov ter koncentracije jedrskih snovi elementarnega urana in plutonija v raztopinah dušikove kisline s termoionizacijsko masno spektrometrijo (ISO 8299:2019)

*Nuclear fuel technology - Determination of the isotopic and elemental uranium and plutonium concentrations of nuclear materials in nitric acid solutions by thermal-ionization mass spectrometry (ISO 8299:2019)*

Osnova: EN ISO 8299:2021

ICS: 27.120.30

This document specifies a method for the determination of the isotopic and elemental uranium and plutonium concentrations of nuclear materials in nitric acid solutions by thermal-ionization mass spectrometry.

The method applies to uranium and plutonium isotope composition and concentration measurement of irradiated Magnox and light water reactor fuels (boiling water reactor or pressurized water reactor), in final products at spent-fuel reprocessing plants, and in feed and products of MOX and uranium fuel fabrication. The method is applicable to other fuels, but the chemical separation and spike solution are, if necessary, adapted to suit each type of fuel.

**SIST EN ISO 9161:2021****2021-04** (po) (en;fr;de) **15 str. (D)**

Uranov dioksid v prahu - Ugotavljanje navidezne gostote in gostote po stiskanju (s potresanjem) (ISO 9161:2019)

*Uranium dioxide powder - Determination of apparent density and tap density (ISO 9161:2019)*

Osnova: EN ISO 9161:2021

ICS: 27.120.30

This document specifies a method of determining the apparent density and tap density of free-flowing uranium dioxide (UO<sub>2</sub>) powder which will be used for pelleting and sintering of UO<sub>2</sub> pellets as a nuclear fuel.

This method can be used for different UO<sub>2</sub> powder types including grains, granules, spheres or other kinds of particles. The method can also be applied to other fuel powders as PuO<sub>2</sub>, ThO<sub>2</sub> and powder mixtures as UO<sub>2</sub>-PuO<sub>2</sub> and UO<sub>2</sub>-Gd<sub>2</sub>O<sub>3</sub>.

This document is based on the principle of using a flowmeter funnel (see 4.1). Other measurement apparatus, such as a Scott volumeter, can also be used.

**SIST EN ISO 9463:2021****2021-04** (po) (en;fr;de) **19 str. (E)**

Jedrska energija - Tehnologija jedrskih goriv - Določevanje plutonija v raztopinah dušikove kisline s spektrofotometrijo (ISO 9463:2019)

*Nuclear energy - Nuclear fuel technology - Determination of plutonium in nitric acid solutions by spectrophotometry (ISO 9463:2019)*

Osnova: EN ISO 9463:2021

ICS: 27.120.30

This document specifies an analytical method by spectrophotometry, for determining the plutonium concentration in nitric acid solutions, with spectrophotometer implemented in hot cell and glove box allowing the analysis of high activity solutions. Commonly, the method is applicable, without interference, even in the presence of numerous cations, for a plutonium concentration higher than 0,5 mg·l<sup>-1</sup> in the original sample with a standard uncertainty, with coverage factor k = 1, less than 5 %.

The method is intended for process controls at the different steps of the process in a nuclear fuel reprocessing plant or in other nuclear facilities.

# NAROČILNICA ZA SLOVENSKE STANDARDE IN DRUGE PUBLIKACIJE

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