SLOVENSKI STANDARD
SIST EN 15102:2019

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Nadomešča:
SIST EN 15102:2008+A1:2011

Dekorativne stenske obloge - Zvitki

Decorative wallcoverings - Roll form

Dekorative Wandbekleidungen - Rollen

Revêtements muraux décoratifs - Rouleaux

Ta slovenski standard je istoveten z: EN 15102:2019

ICS:

91.180	Notranja zaključna dela	Interior finishing

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English Version

Decorative wallcoverings - Roll form

Revêtements muraux décoratifs - Rouleaux

Dekorative Wandbekleidungen - Rollen

This European Standard was approved by CEN on 7 October 2018.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 15102:2019) has been prepared by Technical Committee CEN/TC 99 “Wallcoverings”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2019 and conflicting national standards shall be withdrawn at the latest by December 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15102:2007+A1:2011.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

For relationship with Regulation No 305/2011, see informative Annex ZA, which is an integral part of this document.

The significant technical changes between this European Standard and the previous edition are listed below:

— changes of Annex ZA according to the new model;

— changes concerning the dangerous substances;

— suppression of the wallcoverings in panels form from the standard.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document applies to wallcoverings in roll form supplied for hanging onto internal walls, partitions or ceilings, by means of an adhesive, whose primary purpose is decorative. However, certain wallcoverings in roll form may confer minor sound absorption and thermal resistance properties.

The European Standards for wallcoverings in roll form to which this document relates, and which provide additional product definitions and requirements, include the following:

— finished wallpapers, wall vinyls and plastics wallcoverings (EN 233);

— wallcoverings for subsequent decoration (EN 234);

— textile wallcoverings (EN 266);

— Cork rolls (EN 13085);

— heavy duty wallcoverings (EN 259-1).

This document also provides for the assessment and verification of constancy of performance (AVCP) of characteristics and marking of these products.

It does not apply to wallcoverings whose primary purpose is structural or protective.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1122:2001, *Plastics — Determination of cadmium — Wet decomposition method*

EN 12149:1997, *Wallcoverings in roll form - Determination of migration of heavy metals and certain other elements, of vinyl chloride monomer and of formaldehyde release*

EN 12667:2001, *Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Products of high and medium thermal resistance*

EN 13238:2010, *Reaction to fire tests for building products — Conditioning procedures and general rules for selection of substrates*

EN 13501-1:2018, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 13823:2010+A1:2014, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*

EN 16516:2017, *Construction products: Assessment of release of dangerous substances — Determination of emissions into indoor air*

CEN/TS 15968:2010, *Determination of extractable perfluorooctanesulphonate (PFOS) in coated and impregnated solid articles, liquids and fire fighting foams — Method for sampling, extraction and analysis by LC-qMS or LC-tandem/MS*

EN ISO 354:2003, *Acoustics — Measurement of sound absorption in a reverberation room (ISO 354:2003)*

EN ISO 10456:2007, *Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values (ISO 10456:2007)*

EN ISO 11654:1997[1)], *Acoustics — Sound absorbers for use in buildings — Rating of sound absorption (ISO 11654:1997)*

EN ISO 11925-2:2010, *Reaction to fire tests — Ignitability of products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2:2010)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
product group
range of products within defined limits of variability (defined by the manufacturer or a technical specification) of the product parameters and, if relevant, end-use parameters, for which the reaction to fire performance remains unchanged (does not get worse)

3.2
product parameter
aspect of a product which can vary and have an influence on the product's performance, for example, reaction to fire

Note 1 to entry: It covers aspects such as thickness, composition, density.

3.3
end use application
real application of a product, in relation to all aspects that influence the behaviour of that product under different fire situations

Note 1 to entry: It covers aspects such as its quantity, its orientation, its position in relation to other adjacent products and its method of fixing as given in the relevant standards, referred in EN 13501-1:2018.

3.4
use application parameter
aspect of the mounting and fixing arrangement of a product reflecting/simulating its end-use application which can affect the fire performance

Note 1 to entry: It covers aspects such as type of substrate, fixing method, position and type of joints.

1) EN ISO 11654 is currently under revision.

4 Product's characteristics

4.1 Reaction to fire

4.1.1 General

The reaction to fire performance of the wallcoverings in roll form shall be classified in accordance with the requirements of EN 13501-1:2018, either:

a) without the need for testing (Classification without testing – CWT), as specified in 4.1.2, when meeting the requirements, specified therein, or otherwise

b) based on results of the test(s) of the wallcoverings in roll form, as specified in 4.1.3.

NOTE Applicable when the wallcoverings in roll form does not meet the requirements referred to in a) or where a higher class than the one referred to therein is sought.

4.1.2 Classification without testing

The reaction to fire performance of a given type of wallcoverings in roll form may be expressed as class D-s3,d2, when meeting the corresponding requirements specified in Table 1[2)]

Table 1 — Classes of reaction to fire performance for decorative wallcoverings in roll form

Product [a]	Maximum mass per unit area g/m^2	Maximum thickness mm	Class [b]
Wallcoverings on cellulose fibre base	190	0,9	D-s3, d2
Wallcoverings on cellulose fibre base and polymer coated or printed	470	0,7	
Wallcoverings on a mixture of cellulose and polyester fibre base	160	0,3	
Wallcoverings on a mixture of cellulose and polyester fibre base and polymer coated or printed	410	0,5	
Wallcoverings on polymer coated fabric base	510	0,7	
Wallcoverings of woven textile with a backing consisting of cellulose fibre or cellulose and polyester fibre	450	0,8	
Wallcoverings of foamed PVC with a backing consisting of cellulose fibre or cellulose and polyester fibre	310	1,8	
[a] Products in accordance with European standard mounted on a substrate of at least class A2-s1,d0 with a minimum thickness 12 mm and with minimum density 800 kg/m^3 using starch, or starch/PVA, or cellulose/PVA adhesive applied at a maximum 200 g/m^2. [b] Class as provided for in Table 1 of the Annex to Commission Delegated Regulation (EU) 2016/364.			

2) This table is the same as Table in the Annex of the Commission Decision 2010/82/EU of 2010-02-09 (see *OJEU L038 of 2010-02-11*).

4.1.3 Classification based on test results

4.1.3.1 General

4.1.3.1.1 The reaction to fire performance of a given type of the wallcoverings in roll form shall be determined on a base of results of the test(s), using standard(s), which is/are indicated for a specific reaction to fire class in EN 13501-1:2018, with exception of the class F, for which test shall be performed in accordance with EN ISO 11925-2:2010.

Before certain of such test(s) is performed, the test pieces shall be conditioned according to 4.1.3.2 and selected according to 4.1.3.3.

4.1.3.1.2 Based on the test results obtained, the reaction to fire performance of a given type of wallcoverings in roll form shall be classified according to EN 13501-1:2018 and expressed as the class achieved.

When the SBI test is to be performed in accordance with EN 13823:2010+A1:2014, also the name of the product used in the test as substrate, together with its reaction to fire class and density (kg/m^3), and adhesive coating weight (g/m^2), shall be added to the class expressed.

4.1.3.2 Specimen preparation and conditioning

The test pieces of wallcoverings in roll form shall be conditioned prior to the test in accordance with EN 13238:2010.

4.1.3.3 Extended application rules

When defining a product family of a particular type of the wallcoverings in roll form with regard to its reaction to fire performance, the product's parameters, influencing such performance, as given in Annex A, shall be taken into account.

4.2 Release and emission of formaldehyde

4.2.1 General

If formaldehyde is neither actively added in manufacturing process of the wallcoverings in roll form nor found in any of their raw materials and it is not known to occur in any stage of their production process, the performance of wallcoverings in roll form shall be assessed and expressed as:

a) release/emission of formaldehyde, without testing, as specified in 4.2.2, if this is proved to be the case (i.e. by manufacturer's/ suppliers' declaration(s)), or otherwise

   NOTE In Annex B, guidance is given on such supplier's declarations or manufacturer's declaration.

b) release of formaldehyde and/or emission of formaldehyde, both based on test results, as specified separately in 4.2.3.

4.2.2 Assessment without testing

Such wallcoverings in roll form are deemed to satisfy the requirements and the performance of release / emission of formaldehyde from them may be assessed without the need for testing (CWT) and expressed as "compliant".

4.2.3 Assessment based on test results

The performance of release of formaldehyde from wallcoverings in roll form shall be assessed and expressed based on results on one of the following test options, as:

a) release of formaldehyde, in accordance with EN 12149:1997, Clause 6 (Test C), and if the value is ≤ 120 mg/kg, expressed as indication "≤ 120 mg/kg", or

b) emission of formaldehyde, in accordance with EN 16516:2017 and expressed as a value in µg/m³.

4.3 Migration of heavy metals and specific elements

4.3.1 General

If none of the heavy metals and specific elements, listed in Table 2, is actively added in manufacturing process of the wallcoverings in roll form or found in any of their raw materials and it is not known that it may occur in any stage of their production process, the performance of migration of the heavy metals and specific elements from wallcoverings in roll form shall be assessed and expressed, as specified:

a) in 4.3.2, if this is proved to be the case (i.e. by manufacturer's/ suppliers' declaration(s)), and/or

NOTE In Annex B, guidance is given on such supplier's declarations or manufacturer's declaration.

b) in 4.3.3, otherwise.

4.3.2 Assessment without testing

Such wallcoverings in roll form are deemed to satisfy the requirements and the performance of migration of the heavy metals and specific elements from them, as listed in Table 2, may be assessed without the need for testing (CWT) and expressed as "compliant".

4.3.3 Assessment based on test results

4.3.3.1 For performance of migration of any of the heavy metals or specific elements from wallcoverings in roll form, as listed in Table 2, the following values (both in mg/kg), shall be determined:

a) an analytical value, A, obtained in the test performed in accordance with EN 12149:1997, Clause 4 (Test A), and

b) a corrected value, C, calculated according the following Equation, where B is analytical correction factor from Table 3 for the corresponding heavy metal or specific element:

$$C = A - (A \times B)/100$$

EXAMPLE Analytical result for lead (A) is 120 and corresponding analytical correction factor in Table 3 (B) 30 %.

Corrected analytical value, C = 120 – (120 × 30)/100 = 120 – 36 = 84 mg/kg ≤ 90 mg/kg.

This is regarded as satisfying the respective maximum migration requirement, specified in Table 2.

Table 2 — Maximum migration of heavy metals and specific elements of wallcoverings in roll form

Heavy metal or specific element	Symbol	Maximum migration mg/kg
Antimony	Sb	-
Arsenic	As	25
Barium	Ba	500
Cadmium	Cd	25
Chromium	Cr	60
Lead	Pb	90
Mercury	Hg	20
Selenium	Se	165

Table 3 — Analytical correction factor

Heavy metal or specific element	Sb	As	Ba	Cd	Cr	Pb	Hg	Se
Analytical correction factor, *B*, in %	60	60	30	30	30	30	50	60

4.3.3.2 The corrected analytical value of migration of any of the heavy metals and specific elements from wallcoverings in roll form, as listed in Table 2, except of Antimony (Sb), shall not exceed the related maximum migration value, specified in Table 2 and if so, the performance expressed as “compliant”.

4.3.3.3 For performance of migration of Antimony (Sb) from wallcoverings in roll form, its corrected analytical value (in mg/kg) shall be expressed.

4.4 Release of vinyl chloride monomer

4.4.1 General

If either polyvinyl chloride or products containing vinyl chloride is not actively added in manufacturing process of the wallcoverings in roll form or the raw materials used for them are proved to contain less than 1 mg/kg of vinyl chloride monomer, the performance of release of vinyl chloride monomer from wallcoverings in roll form shall be assessed and expressed, as specified:

a) in 4.4.2, if this is proved to be the case (i.e. by manufacturer's/ suppliers' declaration(s)), or

NOTE In Annex B, guidance is given on such supplier's declarations or manufacturer's declaration.

b) in 4.4.3, otherwise.

1 kg of PVC raw material should not have more than 1 mg of vinyl chloride monomer.

4.4.2 Assessment without testing

Such wallcoverings in roll form are deemed to satisfy the requirements and the performance of release of vinyl chloride monomer from them may be assessed without the need for testing (CWT) and expressed as “compliant”.