

Decorative wallcoverings — Roll and panel form products

ICS 91.180

National foreword

This British Standard is the UK implementation of EN 15102:2007+A1:2011. It supersedes BS EN 15102:2007, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by **[A]** **[A1]**.

The UK participation in its preparation was entrusted to Technical Committee CW/35, Wallcoverings.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2007

© BSI 2011

ISBN 978 0 580 72595 1

Amendments/corrigenda issued since publication

Date	Comments
30 November 2011	Implementation of CEN amendment A1:2011

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 15102:2007+A1

September 2011

ICS 91.180

Supersedes EN 15102:2007

English Version

Decorative wall coverings - Roll and panel form

Revêtements muraux décoratifs - Rouleaux et panneaux

Dekorative Wandbekleidungen - Rollen- und Plattenform

This European Standard was approved by CEN on 23 September 2007 and includes Amendment 1 approved by CEN on 4 August 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Characteristics	6
4.1 A) Reaction to fire A₁	6
4.2 Release of formaldehyde	7
4.3 A) Release of other dangerous substances A₁	7
4.3.1 Heavy metals and specific elements	7
4.3.2 Release of vinyl chloride monomer	9
4.4 Sound absorption	9
4.5 Thermal resistance	9
5 Evaluation of conformity.....	9
5.1 General.....	9
5.2 Initial type testing	9
5.2.1 General.....	9
5.2.2 Sampling, testing and compliance criteria	10
5.3 Factory production control (FPC)	11
6 Marking and labelling	11
Annex A (normative) Factory production control.....	12
A.1 General.....	12
A.2 General requirements	12
A.3 Equipment	13
A.3.1 Testing	13
A.3.2 Manufacturing	13
A.4 Raw materials	13
A.5 Product testing and evaluation	13
A.6 Non-conforming products	14
A.7 Traceability	14
A.8 A) Initial inspection of factory and of FPC	14
A.9 Continuous surveillance of FPC A₁	15
Annex B (normative) A) Extended application rules within a group of product for the reaction to fire tests	16
B.1 Sampling	16
B.2 Product parameter having an influence on the product's fire performance of wall coverings	16
B.3 End-use application parameters	16
B.4 Tests conducted according to EN 13823 intended for an extended application	17
B.4.1 Investigation of a group of product on different parameters	17
B.4.2 Usage of the test results obtained during the first step	17
B.5 Tests conducted according to EN ISO 11925-2 intended for an extended application	17
B.5.1 Investigation of a group of product on different parameters	17
B.5.2 Usage of the test results obtained during the first step A₁	17
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/106/EEC, EU Construction Products Directive	19
ZA.1 Scope and relevant characteristics	19

ZA.2 Procedures for the attestation of conformity of wallcovering products in roll or panel form.....	20
ZA.2.1 Systems of attestation of conformity	20
ZA.2.2 EC certificate of conformity and EC declaration of conformity.....	23
ZA.3 CE marking and labelling.....	24
ZA.3.1 General information for CE marking	24
ZA.3.2 Minimum CE marking information	24
ZA.3.3 Complete CE marking information	25
Bibliography.....	27

Foreword

This document (EN 15102:2007+A1:2011) 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 March 2012, and conflicting national standards shall be withdrawn at the latest by June 2013.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This document includes Amendment 1, approved by CEN on 2011-08-04.

This document supersedes EN 15102:2007.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **[A1]** **[A1]**.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard applies to all forms of wallcovering products in roll and panel form as defined in EN 235 supplied for hanging onto internal walls, partitions or ceilings, by means of an adhesive, whose primary purpose is decorative. However, certain wallcovering products may confer minor sound absorption and thermal resistance properties.

It also provides for the evaluation of conformity of products to the requirements of this standard.

It does not apply to wall coverings whose primary purpose is structural or protective (e.g. vapour or moisture barriers).

2 Normative references

The following referenced documents are indispensable for the application 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 71-3:1994, *Safety of toys — Part 3: Migration of certain elements*

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 12524, *Building materials and products — Hygrothermal properties — Tabulated design values*

EN 12667, *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 12781:2001, *Wallcoverings — Specification for cork panels*

EN 13085:2001, *Wallcoverings — Specification for cork rolls*

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

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

[A] EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item* [A]

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

EN ISO 9001:2000, *Quality management systems — Requirements* (ISO 9001:2000)

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

3 Terms and definitions

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

[A1] 3.1

direct field of application of tests results

outcome of a process (involving the application of defined rules) whereby a test result is deemed to be equally valid for variations in one or more of the product properties and/or intended end use applications

3.2

extended field of application of test results

outcome of process (involving the application of defined rules that may incorporate calculation procedures) that predicts, for a variation of a product property and/or its intended end use application(s), a test result on the basis of one or more test results to the same test standard

3.3

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)

3.4

product parameter

aspect of a product (for example thickness, composition, density) which can vary and have an influence on the product's fire performance

3.5

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 It covers aspects such as its quantity, its orientation, its position in relation to other adjacent products and its method of fixing (EN 13501-1).

3.6

end use application parameter

aspect of the mounting and fixing arrangement of a product reflecting/simulating its end-use application (for example type of substrate, fixing method, position and type of joints) which can affect the fire performance **[A1]**

4 Characteristics

4.1 [A1] Reaction to fire

Where use of a wall covering product as internal finishes on walls, partitions and/or ceilings is subject to the reaction to fire regulation requirements, its reaction to fire class (including the additional classification on smoke production and flaming droplets/particles, if any) shall be determined and declared according to EN 13501-1:

- a) either without the need for further testing (CWFT), as given in Table 1¹⁾, if the wall covering product is proved to meet the requirements of the class given therein;

1) Table is the same as given in the Decision of the Commission 2010/82/EU of 2010-02-09 (see OJEU L38 of 2010-02-11).

- b) or based on testing of the wall covering product according to the standards referred to in EN 13501-1, when the wall covering product does not meet the requirements of Table 1 or where a higher class than the one in a) is sought.

NOTE Class F may be declared, which is an equivalent to "No Performance Determined" (NPD) for this characteristic, when use of wall covering product is not subject to the national regulatory requirements on reaction to fire.

Table 1 — Classes of reaction to fire performance for decorative wall coverings in roll and panel 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 EN 15102 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 Decision 2000/147/EC.				

When option b) is applied and where required by the test methods, the wallcovering product shall be tested in its end use conditions according to Annex B. In this case, the class declared shall be followed also by the associated mounting and fixing conditions (only if relevant for this class). ^{A1}

4.2 Release of formaldehyde

The release of formaldehyde from the wallcovering product shall be declared when subject to regulatory requirement and may be declared otherwise. The formaldehyde release, when tested in accordance with Test C of EN 12149:1997 (as modified in Annex A of EN 12781:2001 or EN 13085:2001 for cork wallcovering products in panel form and roll form respectively) shall not exceed 120 mg/kg of wallcovering.

If no formaldehyde or products containing formaldehyde are added during the manufacturing process of the wallcovering product, and the raw materials are declared by the supplier to contain less than 120 mg/kg of formaldehyde, then testing is not necessary.

4.3 ^{A1} Release of other dangerous substances ^{A1}

4.3.1 Heavy metals and specific elements

4.3.1.1 Requirements

The migration of heavy metals and specific elements from the wallcovering product, expressed as mg/kg of wallcovering, shall not exceed the values given in ^{A1} Table 2 ^{A1} (after correction according to 4.3.1.2) when measured in accordance with Test A of EN 12149:1997. If none of these substances are added during the

wallcovering manufacturing process, and all the raw materials are declared by the supplier to meet the requirements of **[A1]** Table 2 **[A1]**, then testing is not necessary.

4.3.1.2 Interpretation of results

The analytical results on migration of heavy metals and specific elements from the wallcovering product, obtained from the tests specified in EN 12149:1997 shall be corrected by subtracting the value of the analytical correction factors given in **[A1]** Table 3 **[A1]** in order to obtain a corrected analytical result.

The wallcovering product shall be considered to meet the requirements of this European Standard if the corrected analytical result does not exceed the limits indicated in **[A1]** Table 2 **[A1]**.

Given the precision of the methods specified in this European Standard, the corrected analytical result to take into account the results of inter-laboratory tests (see Annex D of EN 71-3:1994) shall be used.

EXAMPLE: Analytical result for lead: 120 mg/kg.

Corresponding analytical correction in Table 3: 30 %.

Corrected analytical result = $120 - (120 \times 30)/100 = 120 - 36 = 84$ mg/kg. This is regarded as satisfying the requirements of the standard (i.e. lead ≤ 90 mg/kg).

NOTE The measuring methods used in EN 12149:1997 are derived directly from EN 71-3:1994 on the safety of toys. Annex D of EN 71-3:1994, in particular D.4 'Statistical uncertainty of the test procedure and interpretation of results' justifies the introduction of a correction factor.

[A1] Table 2 [A1] — Maximum migration of heavy metals and specific elements of wallcovering products

Heavy metal or element	Symbol	Maximum migration in mg/kg
Antimony	Sb	No upper limit
Arsenic	As	25
Barium	Ba	500
Cadmium	Cd	25
Chromium	Cr	60
Lead	Pb	90
Mercury	Hg	20
Selenium	Se	165

[A1] Table 3 [A1] — Analytical correction factor

Element	Sb	As	Ba	Cd	Cr	Pb	Hg	Se
Analytical correction factor (in percentage)	60	60	30	30	30	30	50	60

4.3.2 Release of vinyl chloride monomer

The release of vinyl chloride monomer (VCM) from the wallcovering product shall be declared when subject to regulatory requirement and may be declared otherwise. The maximum VCM release when tested to Test B of EN 12149:1997 shall not exceed 0,2 mg/kg of wallcovering.

If no polyvinyl chloride or products containing vinyl chloride are used during the manufacturing process of the wallcovering product or if the raw materials used are declared by the supplier to contain less than 1 mg/kg of vinyl chloride monomer, then testing on VCM release is not necessary.

4.4 Sound absorption

The sound absorption of the wallcovering product shall be declared when its intended end use is subject to regulatory requirement and may be declared otherwise. It shall be measured in accordance with EN ISO 354 and expressed as a single number rating according to EN ISO 11654.

4.5 Thermal resistance

The thermal resistance of the wallcovering product shall be declared when its intended end use is subject to regulatory requirement and may be declared otherwise. The value shall either be taken from EN 12524 or the products shall be tested in accordance with EN 12667 and a value declared in $\text{m}^2\text{K/W}$ or W/(mK) .

5 Evaluation of conformity

5.1 General

The conformity of the wallcovering product with the requirements of this standard and with the stated values (including classes) shall be demonstrated by:

- initial type testing,
- factory production control by the manufacturer, including product assessment (see Annex A).

For the purposes of testing, wallcovering products may be grouped into families A_1 (see 3.3) A_2 .

5.2 Initial type testing

5.2.1 General

Initial type testing shall be performed to show conformity of the wallcovering product with this standard. Tests previously performed in accordance with the provisions of this standard (same product, same characteristic(s), test method, sampling procedure, system of attestation of conformity, etc.) may be taken into account. In addition, initial type testing shall be performed at the beginning of the production of a new product type (unless a member of the same family) or at the beginning of a new method of production (where this may affect the stated properties).

All characteristics in Clause 4 shall be subject to initial type testing.

Whenever a change occurs in the product raw materials, raw material suppliers, or the production process (subject to the definition of a family), which may change significantly one or more of the characteristics given in Clause 4, then the initial type testing shall be repeated for the appropriate characteristic(s).

5.2.2 Sampling, testing and compliance criteria

5.2.2.1 Sampling procedure

The sample of the wallcovering product taken for initial type testing shall be representative of normal production or, in the case of new products, samples representative of intended future production.

Whenever practicable, the random sampling method shall be used, in which every product in a batch has an equal chance of being selected for the sample. The required numbers of product shall be selected from a batch at random, without any consideration given to the condition or quality of the selected products.

When random sampling is impracticable, e.g. when the products form a large stack or stacks with ready access to only a limited number of products, a representative sampling procedure shall be used.

5.2.2.2 Testing and compliance criteria

The testing and compliance criteria are given in A1 Table 4 A1.

The results of all initial type testing shall be recorded and held by the manufacturer for at least 5 years after the last date of production of the wallcovering product to which they relate.

A1 **Table 4 — Testing and compliance criteria for initial type testing of the wall covering product**

Characteristic	Requirement clause	Assessment method	Number of specimens	Conformity criteria
Reaction to fire	4.1 a)	See Note 1	See Note 1	Table 1
	4.1 b)	Tests referred to from EN 13501-1 (testing)	As required by the appropriate test standard	See classification in EN 13501-1
Release of formaldehyde	4.2	EN 12149:1997 (EN 12781:2001 or EN 13085:2001 for cork products)	As required by the appropriate test standard	See 4.2
Release of heavy metals and specific elements	4.3.1	EN 12149:1997	As required by the test standard	See 4.3.1.2
Release of vinyl chloride monomer (VCM)	4.3.2	EN 12149:1997	As required by the test standard	See 4.3.2
Sound absorption	4.4	EN ISO 354 (testing) EN ISO 11654 (classification)	See note 2	See 4.4
Thermal resistance	4.5	EN 12667 EN 12524	See note 2	See 4.5
NOTE 1 Although no direct testing of reaction to fire is needed for CWFT products, indirect testing of product parameters can be necessary to ensure that the product meets the definition required for CWFT status.				
NOTE 2 Three specimens, each sample from a separate unit, with units selected according to the procedure of 5.2.2.1.				

A1

5.3 Factory production control (FPC)

The manufacturer shall establish, document and maintain an FPC system to ensure that the subsequent wallcovering products placed on the market conform to the declared performance characteristics obtained on the basis of initial type testing. The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, the production process and the product. The FPC system shall comply with at least the requirements of Annex A.

6 Marking and labelling

When compliance with this European Standard is claimed, the wallcovering product, its packaging or a label inside the packaging shall display the following information in such a way that it can be read without removing the wallcovering product from the packaging:

- a) number of this standard, i.e. EN 15102;
- b) manufacturer's or supplier's identification;
- c) product name and batch number (possibly in code form).

NOTE Where ZA.3 covers the same requirements as this clause, the requirements of this clause are met.

Annex A (normative)

Factory production control

A.1 General

The manufacturer shall establish, document and maintain a factory production control (FPC) system to ensure that the subsequent wallcovering products placed on the market conform to the declared performance characteristics. The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, the production process and the product.

All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures. This production control system documentation shall ensure a common understanding of the conformity evaluation and enable the achievement of the required product characteristics and the effective operation of the production control system to be checked.

Factory production control therefore brings together operational techniques and all measures allowing maintenance and control of the conformity of the product with its technical specifications. Its implementation may be achieved by controls and tests on measuring equipment, raw materials, processes, machines and manufacturing equipment and finished product, and by making use of the results thus obtained.

A.2 General requirements

As a minimum, the FPC system shall fulfil the requirements as described in the following clauses of EN ISO 9001:2000, where applicable:

- 4.2 (except 4.2.1 a)),
- 5.1e), 5.5.1, 5.5.2,
- Clause 6,
- 7.1 (except 7.1 a)), 7.2.3 c), 7.4, 7.5, 7.6,
- 8.2.3, 8.2.4, 8.3, 8.5.2.

The FPC system shall:

- be made specific to the products covered by this European Standard, and
- ensure that the products placed on the market conform to the declared performance characteristics.

The FPC system may be part of a quality management system, e.g. in accordance with EN ISO 9001:2000.

The results of inspections, tests or assessments requiring action shall be recorded, as shall any action taken. The action to be taken when control values or criteria are not met shall be recorded and retained for the period specified in the manufacturer's FPC procedures.

A.3 Equipment

A.3.1 Testing

All weighing, measuring, and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.

A.3.2 Manufacturing

All equipment, where applicable, used in the manufacturing process shall be regularly inspected and maintained to ensure that use, wear or failure does not cause inconsistency in the manufacturing process. Inspections and maintenance shall be carried out and recorded in accordance with the manufacturer's written procedures and the records retained for the period defined in the manufacturer's FPC procedures.

A.4 Raw materials

The specifications of all incoming raw materials shall be documented, as shall the inspection scheme for ensuring their conformity. In determining the checks required, consideration shall be given to the control exercised by the supplier and the documented evidence of conformity.

A.5 Product testing and evaluation

The manufacturer shall establish procedures to ensure that the declared values of all the characteristics are maintained or in the case of new products are capable of being maintained. The characteristics and the means of control are:

a) Reaction to fire

Routine control of reaction to fire classification shall be on the basis of checks, of a type and a frequency to be defined and documented by the manufacturer. These checks are to ensure that the raw materials remain within the tolerances specified and the composition of the finished wallcovering product remains the same as that subject to initial type testing.

b) Release of formaldehyde, heavy metals and specific elements, and vinyl chloride monomer

Routine control of these characteristics shall be on the basis of checks, of a type and a frequency to be defined and documented by the manufacturer. These checks are to ensure that the raw materials remain within the tolerances specified and the composition of the finished wallcovering product remains representative as that subject to initial type testing.

c) All other characteristics

Routine control of these characteristics shall be on the basis of checks, of a type and a frequency to be defined and documented by the manufacturer. These checks are to ensure that the raw materials remain within the tolerances specified and the construction of the finished wallcovering product remains the same as that subject to initial type testing.

Control of the specified characteristics may be accomplished by indirect testing, provided correlation between the indirect test method and the characteristics can be demonstrated.

A.6 Non-conforming products

The manufacturer shall have written procedures which specify how non-conforming wallcovering products shall be dealt with. Any such events shall be recorded as they occur and these records shall be kept for the period defined in the manufacturer's written procedures.

The checking and testing status of the wallcovering product or the wallcovering product family shall be identified by means which clearly indicate the conformity or non-conformity of the product or product family with regards to the checks and tests performed.

A.7 Traceability

It is the manufacturer's, or the manufacturer's agent's, responsibility to keep full records of individual wallcovering products or product batches, including their related manufacturing details and characteristics and to keep records of to whom these products or batches were first sold.

A.8 Initial inspection of factory and of FPC

Initial inspection of factory and of FPC shall generally be carried out when the production is already running and the FPC is already in practice.

It is, however, possible that the initial inspection of factory and of FPC is carried out before the production is already running and/or before the FPC is already in practice.

The following shall be assessed:

- the FPC-documentation, and
- the factory.

In the assessment of the factory it shall be verified:

- a) that all resources necessary for the achievement of the component characteristics required by this European Standard are or will be available, and
- b) that the FPC-procedures in accordance with the FPC-documentation are or will be implemented and followed in practice, and
- c) that the component complies or will comply with the initial type testing samples, for which compliance with this European Standard has been verified.

All factories of the manufacturer, where for the product is produced and/or final testing as part of the FPC is performed, shall be visited to verify that the conditions of a) to c) are in place. One visit may cover one or more products, production lines and/or production processes. If the FPC system covers more than one products, production line or production process and it is verified that the general requirements are fulfilled when assessing one product, production line or production process, then the assessment of the general requirements does not need to be repeated when assessing the FPC for another product, production line or production process.

Assessments previously performed in accordance with the provisions of this standard may be taken into account providing that they were made to the same system of attestation of conformity on the same product, of same design, construction and functionality, such that the results may be considered applicable to the product in question.

Any assessment and its results shall be documented in a report.

A.9 Continuous surveillance of FPC

Surveillance of the FPC shall be undertaken during an unannounced visit at least once per year unless a previous visit has shown that a lesser frequency would be acceptable. In such a case a minimum frequency for this surveillance shall be not more than 5 years. However, in case of any non-compliance of the product is found then the frequency of such visit shall be again increased to at least once per year.

The surveillance of the FPC shall include a review of the FPC test plan(s) and production processes(s) for each product to determine if any changes have been made since the last assessment or surveillance. The significance of any changes shall be assessed.

Checks shall be made to ensure that the test plans are still correctly implemented and that the production equipment is still correctly maintained and calibrated.

The records of tests and measurement made during the production process and to finished products shall be reviewed to ensure that the performances of the stated product's characteristics obtained still correspond with those declared on the samples submitted to type testing and that the correct actions have been taken for non-compliant products.

Any assessment and its results shall be documented in a report. [A1](#)

Annex B (normative)

[A1] Extended application rules within a group of product for the reaction to fire tests

B.1 Sampling

The samples shall be selected according to the sampling procedure as described in 5.2.2 and specified in B.2 to B.5 hereafter. The representativeness of the samples shall be ensured by selecting three different samples within a product group.

If the whole product group or a part of it is produced on different production sites, the sampling shall be distributed among the different sites.

B.2 Product parameter having an influence on the product's fire performance of wall coverings

The product parameters shown in Table B.1 influence the reaction to fire performance of wall coverings. When testing a product group for initial type testing, the provisions of this table shall apply.

Table B.1 — Product parameters influencing the reaction to fire performance of wall coverings products

Product parameters	Comments
Thickness	Generally, both parameters are correlated.
Mass per square metre	Consequently, take the mass per square metre into account at first, when carrying out tests for an extended application. If the results are not correlated, take the thickness into account separately from the mass per square metre.

B.3 End-use application parameters

The end-use application parameters shown in Table B.2 shall be applied.

Table B.2 — End-use application parameters

End-use application parameters ^a	Comments
Substrate and underlying construction	For the substrate, apply EN 13238 and choose the appropriate substrate in accordance with the local regulations.
Mounting and fixing method	Tests shall be conducted with the adhesives recommended by the manufacturer.
Joints	The joint shall be realised according to the manufacturer's recommendations (edge to edge, overlaid, etc.). Tests shall only be conducted with a joint either horizontal or vertical depending on the hanging instructions of the wall covering products.

^a Applicable when testing according to EN 13823.

B.4 Tests conducted according to EN 13823 intended for an extended application

B.4.1 Investigation of a group of product on different parameters

At the first step single tests shall be conducted on each parameter identified as having an influence.

B.4.2 Usage of the test results obtained during the first step

B.4.2.1 The results obtained lead to the class required by the manufacturer and the parameters have no influence

The classification shall be obtained by an average calculation based on the results of the 3 tests.

B.4.2.2 The results obtained lead to the class required by the manufacturer and at least one parameter has an influence

If at least one parameter has an influence, carry out 2 complementary tests with the couple product/parameters giving the worst results (in comparison with the obtained results). Complete the tests by the samples coming from whether the same batch or different batches.

The classification shall be obtained by an average calculation based on the results of the 3 tests carried on the worst case.

The reaction to fire class obtained may be applied for any product of that group of products. If the foreseen class is not obtained, then the procedure, specified in B.4.2.3 shall be proceeded.

B.4.2.3 The results obtained do not lead to the class required by the manufacturer and at least one parameter has an influence

In this case either a new investigation shall be conducted or the composition of the group of product changed.

B.5 Tests conducted according to EN ISO 11925-2 intended for an extended application

B.5.1 Investigation of a group of product on different parameters

At the first step single tests shall be conducted on each parameter identified as having an influence. For each parameter the test shall be conducted applying the flame on the surface and on the edge.

B.5.2 Usage of the test results obtained during the first step

B.5.2.1 The results obtained lead to the class required by the manufacturer and the parameters have no influence

The classification shall be obtained by an average calculation based on the results of the 3 tests.

B.5.2.2 The results obtained lead to the class required by the manufacturer and at least one parameter has an influence

The tests shall be completed by using the sample giving the worst result during the tests conducted earlier. The classification shall be obtained by an average calculation based on the results of the 6 tests carried on the worst case.

B.5.2.3 The results obtained do not lead to the class required by the manufacturer

In this case either a new investigation shall be conducted or the composition of the group of product changed. ^{A1}

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 89/106/EEC, EU Construction Products Directive

ZA.1 Scope and relevant characteristics

This European Standard has been prepared under Mandate M/121 "Internal and external wall and ceiling finishes" given to CEN by the European Commission and the European Free Trade Association.

The clauses of this European Standard shown in this annex meet the requirements of the mandate given under the EU Construction Products Directive (89/106/EEC).

Compliance with these clauses confers a presumption of fitness of the construction products covered by this European Standard for its intended uses; reference shall be made to the CE marking information.

WARNING: Other requirements and other EU Directives, not affecting the fitness for intended use(s), can be applicable to the construction products falling within the scope of this European Standard.

NOTE 1 In addition to any specific clauses relating to dangerous substances contained in this standard, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

NOTE 2 An informative database of European and national provisions on dangerous substances is available at the Construction web site on EUROPA (accessed through <http://ec.europa.eu/enterprise/construction/cpd-ds/index.cfm>).

This annex establishes the conditions for the CE marking of the wallcoverings products in roll and panel form intended for the uses indicated in Table ZA.1 and shows the relevant clauses applicable.

This annex has the same scope as Clause 1 of this standard and is defined by Table ZA.1.

 Table ZA.1 — Relevant clauses for wall covering products

Construction products: Wall covering products in roll and panel form Intended uses: Internal finishes of walls, partitions and ceilings			
Essential characteristics	Requirement clauses in this European Standard	Levels and/or classes	Notes
Reaction to fire	4.1 a)	D-s3 d2	CWFT
	4.1 b)	A1 to F	a) According to EN 13501-1 b) Class according to EN 13501-1 and associated mounting and fixing conditions
Release of formaldehyde	4.2	-	a) EN 12149:1997, Test C, where relevant b) Pass/fail (max. value 120 mg/kg)
Release of other dangerous substances			
heavy metals and specific elements	4.3.1	-	a) EN 12149:1997, Test A where relevant b) Table 2 (max. values in mg/kg, where relevant)
vinyl chloride monomer (VCM)	4.3.2	-	a) EN 12149:1997, Test B, where relevant b) Pass/fail (max. value 0,2 mg/kg)
Sound absorption	4.4	-	a) EN ISO 354, where relevant b) EN ISO 11654, single number rating
Thermal resistance	4.5	-	a) EN 12667, where relevant b) test result or tabulated value from EN 12524 as declared value in m ² K/W



The requirement on a certain characteristic is not applicable in those Member States where there are no regulatory requirements on that characteristic for the intended use of the product. In this case, manufacturers placing their products on the market of these Member States are not obliged to determine nor declare the performance of their products with regard to this characteristic and the option "No performance determined" (NPD or Class F for reaction to fire) in the information accompanying the CE marking (see ZA.3) may be used. The NPD option may not be used, however, where the characteristic is subject to a threshold level.

ZA.2 Procedures for the attestation of conformity of wallcovering products in roll or panel form

ZA.2.1 Systems of attestation of conformity

The systems of attestation of conformity for wallcovering products in roll or panel form indicated in Table ZA.1, in accordance with the Decision of the Commission 98/437/EC of 1998-06-30 (see  OJEU  L 194,1998-07-10) as corrected (see  OJEU  L278 of 1998-10-15) and amended by

~~A₁~~ 2001/596/EC ~~A₁~~, 2001-01-08 (see ~~A₁~~ OJEU ~~A₁~~ L 209, 2001-08-02) as given in Annex III of the mandate for "Internal and external wall and ceiling finishes", are shown in Table ZA.2 for the indicated intended uses and relevant level(s) or classes.

Table ZA.2 — Attestation of conformity systems

Products	Intended uses	Classes	Attestation of conformity system
Wallcovering products in roll or panel form	As internal finishes subject to reaction to fire regulations A₁ deleted text A₁	(A1, A2, B, C)* (A1, A2, B, C)**, D and E (A1 to E)*** and F	1 3 4
	As internal finishes for other end uses mentioned in the mandate ¹	—	4
<p>* Products/materials for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material).</p> <p>** Products/materials not covered by footnote (*).</p> <p>*** Products/materials that do not require to be tested for reaction to fire.</p>			
<p>System 1: See Directive 89/106/EEC (CPD) Annex III.2.(i), without audit testing of samples.</p> <p>System 3: See CPD Annex III.2.(ii), second possibility.</p> <p>System 4: See Directive 89/106/EEC (CPD) Annex III.2.(ii), Third possibility.</p>			
<p>¹ Other intended uses covered by the mandate are acoustic control and thermal control.</p>			

~~A₁~~ deleted text ~~A₁~~

The attestation of conformity for the wallcovering product in roll and panel form in Table ZA.1 shall be according to the evaluation of conformity procedures indicated in Tables ZA.3 to ZA.5 resulting from application of the clauses of this European Standard indicated therein.

~~A₁~~ deleted text ~~A₁~~

[A1] Table ZA.3 — Assignment of evaluation of conformity tasks for wallcovering products under system 1

Tasks		Content of the task	Evaluation of conformity clauses to apply
Tasks under the responsibility of the manufacturer	Factory production control (FPC)	Parameters related to characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared	5.3
	Initial type testing by the manufacturer	Characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared, except the reaction to fire classes below	5.2
Tasks under the responsibility of the product certification body	Initial type testing	Reaction to fire classes (A1, A2, B, C)* (see Note)	5.2
	Initial inspection of factory and of FPC	Parameters related to characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared, in particular reaction to fire	5.3
	Continuous surveillance, assessment and approval of FPC	Parameters related to characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared, in particular reaction to fire	5.3

* See footnote (*) to Table ZA.2.

NOTE The selection of samples, according to B.1, is under the responsibility of the certification body, but under the agreement with manufacturer.

Table ZA.4 — Assignment of evaluation of conformity tasks for wall covering products under system 3

Tasks		Content of the task	Evaluation of conformity clauses to apply
Tasks under the responsibility of the manufacturer	Factory production control (FPC)	Parameters related to characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared	5.3
	Initial type testing by a notified test laboratory	Reaction to fire Classes (A1, A2, B, C)**, D and E (see Note)	5.2
	Initial type testing by the manufacturer	Characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared, except the reaction to fire classes above	5.2

** See footnote (**) to Table ZA.2.

NOTE The selection of samples, according to B.1, is under the responsibility of the certification body, but under the agreement with manufacturer.

Table ZA.5 — Assignment of evaluation of conformity tasks for wall covering products under system 4

Tasks		Content of the task	Evaluation of conformity clauses to apply
Tasks under the responsibility of the manufacturer	Factory production control (FPC)	Parameters related to characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared	5.3
	Initial type testing by the manufacturer	Characteristics of Table ZA.1, relevant for the intended use for which the performance to be declared	5.2

(A1)

ZA.2.2 EC certificate of conformity and EC declaration of conformity

(For wallcovering products under system 1): When compliance with the conditions of this annex is achieved, the certification body shall draw up a certificate of conformity (i.e. EC certificate of conformity), which entitles the manufacturer to affix the CE marking. The certificate shall include:

- name, address and identification number of the certification body,
- name and address of the manufacturer, or his authorised representative established in the EEA, and place of production,

NOTE 1 The manufacturer may also be the person responsible for placing the product onto the EEA market, if he takes responsibility for CE marking.

- description of the product (type, identification, use, ...),
- provisions to which the product conforms (i.e. Annex ZA of this EN),
- particular conditions applicable to the use of the product (e.g. provisions for use under certain conditions),
- number of the EC certificate of conformity,
- conditions of validity of the certificate, where applicable,
- name of, and position held by, the person empowered to sign the certificate.

(A1) deleted text (A1)

(For wallcovering products under system 3 or 4): When compliance with the conditions of this annex is achieved, the manufacturer or his agent established in the EEA shall prepare and retain a declaration of conformity (i.e. EC declaration of conformity), which entitles the manufacturer to affix the CE marking. This declaration shall include:

- name and address of the manufacturer, or his authorised representative established in the EEA,
- NOTE 2 (A1) The manufacturer may also be the person responsible for placing the product onto the EEA market, if he takes responsibility for CE marking.
- description of the product (type, identification, use,...), and a copy of the information accompanying the CE marking,

- provisions to which the product conforms (i.e. Annex ZA of this EN), and a reference to the ITT report(s) and factory production control records, as appropriate.

[A] NOTE 3 **[A]** Where some of the information required for the declaration is already given in the CE marking information, it does not need to be repeated.

- particular conditions applicable to the use of the product, (e.g. provisions for use under certain conditions),
- name and address of the notified laboratory(ies) (only for products under system 3),
- name of, and position held by, the person empowered to sign the declaration on behalf of the manufacturer or his authorised representative.

The above mentioned declaration and certificate shall be presented in the language or languages accepted by the Member State in which the wallcovering product is intended to be used.

ZA.3 CE marking and labelling

ZA.3.1 General information for CE marking

The manufacturer or his authorized representative established within the EEA is responsible for the affixing of the CE marking **[A] deleted text [A]**, which consists of the CE-marking symbol, as given by Directive 93/68/EEC, and the appropriate accompanying information. The location(s) of placing of the CE marking information and its content together with some examples of the CE marking information are given more in detail in the subsequent sub-clauses.

ZA.3.2 Minimum CE marking information

As for the minimum CE marking **[A] deleted text [A]**, the CE-marking symbol shall be shown on the label attached to the wallcovering product accompanied by the following information:

- a) identification number of the notified certification body (*only for wallcovering product under system 1*);
- b) name or identifying mark and registered address of the manufacturer (see Note 1 or 3 in ZA.2.2);
- c) last two digits of the year in which the marking **[A]** was **[A]** affixed;
- d) number of the EC certificate of conformity (*only for wallcovering product under system 1*);
- e) reference to this European Standard and the year of its publication (i.e. EN 15102:2007+A1:2011).

Figure ZA.1 gives an example of such minimum CE marking **[A] deleted text [A]** (*for wallcovering product for use under system 1*).

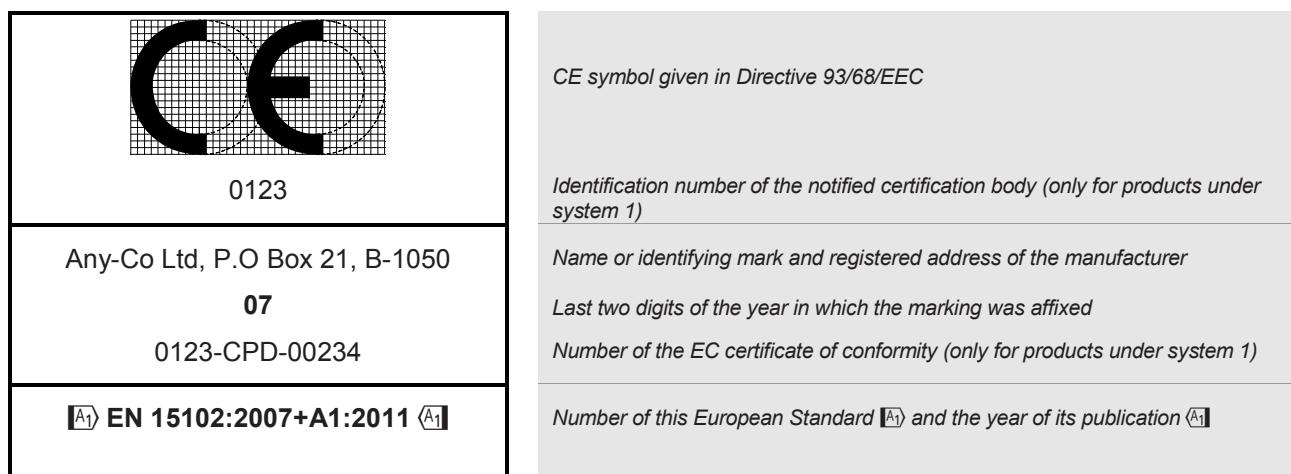


Figure ZA.1 — Example of the minimum CE marking information to be shown on a label attached to the wallcovering product

ZA.3.3 Complete CE marking information

In addition to the minimum CE marking **[A1] deleted text [A1]** as given in ZA.3.2, the CE marking symbol shall also appear on packaging and/or on commercial documents, accompanying the wallcovering product (e.g. a delivery note). In these cases the following information, in addition and the way to those given already for the minimum CE marking **[A1] deleted text [A1]** [(i.e. a) to e)], shall accompany the CE marking symbol and representing the complete CE marking **[A1] deleted text [A1]**:

- f) full description of the wallcovering product: generic name and intended use, i.e. internal decorative;
- g) information on those relevant essential characteristics of the wallcovering product listed in Table ZA.1 (see below), which are to be declared and presented:
 - as declared values and, where relevant, level or class, including "passed" for pass/fail requirements (where necessary) for each essential characteristic; or
 - as "No performance determined" for characteristic(s) where this is relevant

for the following essential characteristics of the wallcovering product:

- [A1]**
 - reaction to fire: as class according to EN 13501-1, either D-s3, d2 (CWFT) or based on test results with the associated mounting and fixing conditions; **[A1]**
 - release of formaldehyde;
 - release of other dangerous substances, as of:
 - heavy metals and specific elements,
 - vinyl chloride monomer (VCM);
 - sound absorption: appropriate method of the fixing, if required;
 - thermal resistance, if required.

Figure ZA.2 gives an example of such complete CE marking ~~A1~~ deleted text ~~A1~~ (for heavy duty wallcovering products for use under system 1).

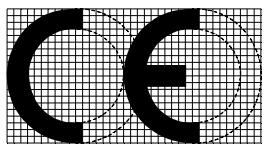
 0123		<i>CE symbol given in Directive 93/68/EEC</i>
Any-Co Ltd, P.O Box 21, B-1050 07 0123-CPD-00234		<i>Identification number of the certification body (only for products under system 1)</i>
EN 15102:2007+A1:2011		<i>Name or identifying mark and registered address of the manufacturer</i>
Heavy duty wallcoverings		<i>Last two digits of the year in which the marking was affixed</i>
Reaction to fire class C-s3,d0 on plasterboard attached with a starch-based adhesive		<i>Number of the EC certificate of conformity (only for products under system 1)</i>
Release of formaldehyde Passed (95 mg/kg)		<i>Number of this European Standard A1 and the year of its publication A1</i>
Release of other dangerous substances: - of heavy metals and specific elements - of vinyl chloride monomer (VCM)		<i>Description of product and intended use</i>
Sound absorption NPD		<i>Information on regulated characteristics</i>
Thermal resistance NPD		

Figure ZA.2 — Example of the complete CE marking information to be given on the packaging ~~A1~~ or ~~A1~~ commercial documents, accompanying the wallcovering product

The "No performance determined" (NPD) option may not be used where the characteristic is subject to a threshold level. Otherwise, the NPD option may be used when and where the characteristic, for a given intended use, is not subject to regulatory requirements in the Member State(s) of destination (e.g. for Class F for reaction to fire).

In addition to any specific information relating to dangerous substances shown above, the product should also be accompanied, when and where required and in the appropriate form, by documentation listing any other legislation on dangerous substances for which compliance is claimed, together with any information required by that legislation.

NOTE 1 European legislation without national derogations need not be mentioned.

NOTE 2 Affixing the CE marking symbol means, if a product is subject to more than one directive that it conforms to all applicable directives.

Bibliography

- [1] EN 235, *Wallcoverings — Vocabulary and symbols*
[A1]
- [2] CEN/TS 15117, *Guidance on direct and extended application*
- [3] EN ISO 11925-2, *Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single flame source test* [A1]

BSI - British Standards Institution

BSI is the independent national body responsible for preparing British Standards. It presents the UK view on standards in Europe and at the international level. It is incorporated by Royal Charter.

Revisions

British Standards are updated by amendment or revision. Users of British Standards should make sure that they possess the latest amendments or editions.

It is the constant aim of BSI to improve the quality of our products and services. We would be grateful if anyone finding an inaccuracy or ambiguity while using this British Standard would inform the Secretary of the technical committee responsible, the identity of which can be found on the inside front cover. Tel: +44 (0)20 8996 9000. Fax: +44 (0)20 8996 7400.

BSI offers members an individual updating service called PLUS which ensures that subscribers automatically receive the latest editions of standards.

Buying standards

Orders for all BSI, international and foreign standards publications should be addressed to Customer Services. Tel: +44 (0)20 8996 9001. Fax: +44 (0)20 8996 7001 Email: orders@bsigroup.com You may also buy directly using a debit/credit card from the BSI Shop on the Website <http://www.bsigroup.com/shop>

In response to orders for international standards, it is BSI policy to supply the BSI implementation of those that have been published as British Standards, unless otherwise requested.

Information on standards

BSI provides a wide range of information on national, European and international standards through its Library and its Technical Help to Exporters Service. Various BSI electronic information services are also available which give details on all its products and services. Contact Information Centre. Tel: +44 (0)20 8996 7111 Fax: +44 (0)20 8996 7048 Email: info@bsigroup.com

Subscribing members of BSI are kept up to date with standards developments and receive substantial discounts on the purchase price of standards. For details of these and other benefits contact Membership Administration. Tel: +44 (0)20 8996 7002 Fax: +44 (0)20 8996 7001 Email: membership@bsigroup.com

Information regarding online access to British Standards via British Standards Online can be found at <http://www.bsigroup.com/BSOL>

Further information about BSI is available on the BSI website at <http://www.bsigroup.com>

Copyright

Copyright subsists in all BSI publications. BSI also holds the copyright, in the UK, of the publications of the international standardization bodies. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI.

This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols, and size, type or grade designations. If these details are to be used for any other purpose than implementation then the prior written permission of BSI must be obtained.

Details and advice can be obtained from the Copyright and Licensing Manager. Tel: +44 (0)20 8996 7070 Email: copyright@bsigroup.com