SLOVENSKI STANDARD
SIST EN 1013:2013/kFprA1:2014

01-april-2014

Prosojne enoslojne profilirane polimerne plošče za notranje in zunanje strehe, stene in strope - Zahteve in preskusne metode

Light transmitting single skin profield plastics sheets for internal and external roofs, walls and ceilings - Requirements and test methods.

Lichtdurchlässige, einschalige profilierte Platten aus Kunststoff für Innen- und Außenanwendungen an Dächern, Wänden und Decken - Anforderungen und Prüfverfahren

Plaques d'éclairement profilées, simple paroi, en matière plastique, pour toitures, bardages et plafonds intérieurs et extérieurs - Exigences et méthodes d'essai

Ta slovenski standard je istoveten z: **EN 1013:2012/FprA1**

ICS:

83.140.10	Filmi in folije	Films and sheets
91.060.10	Stene. Predelne stene. Fasade	Walls. Partitions. Facades
91.060.20	Strehe	Roofs
91.060.30	Stropi. Tla. Stopnice	Ceilings. Floors. Stairs

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English Version

Light transmitting single skin profield plastics sheets for internal and external roofs, walls and ceilings - Requirements and test methods.

Plaques d'éclairement profilées, simple paroi, en matière plastique, pour toitures, bardages et plafonds intérieurs et extérieurs - Exigences et méthodes d'essai

Lichtdurchlässige, einschalige profilierte Platten aus Kunststoff für Innen- und Außenanwendungen an Dächern, Wänden und Decken - Anforderungen und Prüfverfahren

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 128.

This draft amendment A1, if approved, will modify the European Standard EN 1013:2012. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Foreword

This document (EN 1013:2012/FprA1:2014) has been prepared by Technical Committee CEN/TC 128 “Roof covering products for discontinuous laying and products for wall cladding”, the secretariat of which is held by NBN.

This document is currently submitted to the Unique Acceptance Procedure.

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

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

This amendment to EN 1013:2012 takes into account documents TF N 530 Rev2 and TF N 548 Rev1 for the implementation of the Regulation (EU) No.305/2011.

1 Modification to Clause 2

Delete the reference "EN ISO 9001:2008, *Quality management systems — Requirements (ISO 9001:2008)"*

2 Modification to subclause 5.20

Replace subclause 5.20 with the following text:

"National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets.

In the absence of European harmonized test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction website on EUROPA accessed through: http://ec.europa.eu/enterprise/construction/cpd-ds/ "

3 Modification to Clause 7

Replace the whole of Clause 7 with the following text:

"

7 Assessment and verification of constancy of performance – AVCP

7.1 General

The compliance of light transmitting single skin profiled plastics sheets with the requirements of this document and with the stated values (including classes) shall be demonstrated by:

— product type determination,

— factory production control by the manufacturer, including product assessment.

For the purposes of testing, the manufacturer's products may be grouped into families, where it is considered that the results for one or more characteristics from any one product within the family are representative for that same characteristics for all products within that same family (a product may be in different families for different characteristics).

7.2 Product type determination

Product type determination (PTD) shall be performed to show conformity with this document. Tests previously performed in accordance with the provisions of this document (same product, same characteristic(s), test method, sampling procedure, system of attestation of conformity, etc.) may be taken into account.

The characteristics subjected to PTD are listed in Table 8.

Whenever a change occurs in the product design, the raw material or supplier of the components, or the production process (subject to the definition of a family), which would change significantly one or more of the characteristics, the type tests shall be repeated for the appropriate characteristic(s).

All products tested shall be representative of the manufacturer's normal production.

Where raw materials are used whose characteristics have already been determined, by the raw material manufacturer, on the basis of conformity with this or other product standards, these characteristics need not be reassessed provided that the raw materials' performance or method of assessment remain the same, that the characteristics of the raw material are suitable for the intended end use of the finished product, and insofar as the manufacturing process does not have a detrimental effect on the determined characteristics.

Table 8 — Product type determination of single skin profiled plastics sheets

Characteristic	Requirement clause	Assessment method
Visual appearance	5.1	–
Dimensional tolerances and mass per square metre [a]	5.2	6.1
Light transmission	5.3	6.2
Flexural/tensile strength [a]	5.4	6.4
Durability:		
variation of yellowness index after ageing [a]	5.5.3	6.3
variation of light transmission after ageing [a]	5.5.4	6.2
variation of flexural/tensile strength after ageing [a]	5.5.5	6.4
Thermal ageing resistance	5.6	6.5
Longitudinal reversion and profile retention	5.7	6.6
Small hard body impact resistance [a]	5.8.1	6.7
Large soft body impact resistance [a]	5.8.2	See 5.8.2
Resistance to deflection [a]	5.9	6.8
Water vapour permeability [a]	5.10	EN ISO 12572
Water/air permeability [a]	5.11	–
Linear thermal expansion [a]	5.12	EN ISO 11359–2
Reaction to fire [a]	5.13	6.9
External fire performance [a]	5.14	6.10
Glass-fibre content [b]	5.15	6.11
Presence of protective coating [b]	5.17	6.13
Adhesion for surface coating [b]	5.18	6.14
Resistance to fixings [c]	5.19	See 5.19

[a] Only where required.

[b] If relevant.

[c] Appropriate method(s) of fixing to be declared at PTD according to the design of assembly.

When a sheet requires a new PTD as a result of an enforced raw material change by the supplier, and that change affects the raw material composition or grade, the sheet manufacturer may, at his own risk, benefit

from a presumption of conformity to the existing PTD for defined characteristic(s). These shall be durability, variation of yellowness index and light transmission, because these are the subject of long term testing procedures. The presumption of conformity shall be subject to the following:

a) the raw material supplier's written confirmation that the new composition or grade is no less durable than the previous grade or composition (only if this information is available);

   or

   if the new material is considered less durable, the manufacturer shall estimate the new durability based upon relevant information from the material supplier (only if this information is available);

b) the new PTD is commenced at the earliest practical time;

c) if the new PTD indicates a reduced performance than that declared by the manufacturer, the manufacturer shall have suitable traceability procedures and advise the purchaser accordingly;

d) the presumption of conformity shall cease when the period of time has elapsed that would permit the test to provide comparable results with the PTD.

7.3 Factory production control (FPC)

7.3.1 General

The manufacturer shall establish, document and maintain an FPC system to ensure that the products placed on the market conform with the stated 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 conformity evaluation and enable the achievement of the required component 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 component with its technical specifications. Its implementation may be achieved by controls and tests on measuring equipment, raw materials and constituents, processes, machines and manufacturing equipment and finished components, including material properties in components, and by making use of the results thus obtained.

7.3.2 General requirements

Manufacturers having an FPC system, which complies with EN ISO 9001 [4] and which addresses the requirements of this European Standard are recognized as satisfying the FPC requirements.

7.3.3 FPC requirements for all manufacturers

7.3.3.1 Product specific requirements

The FPC system shall:

— address this document; and

— ensure that the products placed on the market conform to the stated performance characteristics.

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.

7.3.3.2 Raw materials and components

The specifications of all incoming raw materials and components shall be documented, and the inspection scheme for ensuring their conformity shall be in accordance with Table 9.

Table 9 — Inspection scheme for raw materials and components

Material/component	Control	Method	Frequency
Raw material and component	Conformity of supplier's declaration with manufacturer's requirement [a]	Document examination	Each delivery
[a] This also applies where the manufacturer of the sheets is also the producer of the raw materials.			

7.3.3.3 Product testing and evaluation

The manufacturer shall establish procedures to ensure that the stated values of all of the characteristics are maintained. The characteristics, and the means of control, shall be as given in Table 10.

Table 10 — Characteristics and minimum sampling frequencies for FPC testing

Characteristic [a]	Requirement clause	Factory production control [b]	Minimum frequency of testing [c]	Compliance criteria
Visual appearance	5.1	Visual inspection	Continuous	As defined in 5.1
Water/air permeability	5.10	Visual inspection	Continuous	No holes
Dimensional tolerances and mass per square metre	5.2	Measurement according to 6.1	Once per 2 hours	Within the tolerances as defined in Table 1
Light transmission	5.3	Measurement according to 6.2	Once per day	Within the tolerances as defined in 5.3
Durability (after ageing):		Raw material and process control	See Table 9 for raw material and continuous process control	Within manufacturer's specification
– variation of yellowness index	5.5.3			
– variation of light transmission	5.5.4			
– variation of flexural/tensile strength	5.5.5			
Flexural/tensile strength	5.4			
Thermal ageing resistance d	5.6			
Longitudinal reversion and profile retention [d]	5.7			
Small hard body impact resistance	5.8.1			
Large soft body impact resistance	5.8.2			
Resistance to deflection	5.9			

Water vapour permeability	5.10	+ see Footnote [e]		
Linear thermal expansion	5.12	+ see Footnote [f]		
Reaction to fire	5.13			
External fire performance	5.14			
Glass-fibre content [g]	5.15			
Presence of protective coating [h]	5.17	+ see Footnote [i]		
Adhesion for surface coating [g]	5.18			
Barcol hardness [g]	5.16	Measurement according to 6.12	Once per 2 h	Within the tolerances defined in 5.16
Resistance to fixing	5.19	–	+ see Footnote [j]	

[a] FPC is performed only if the characteristic is being declared.

[b] Indirect methods of measurement (e.g. process control) are allowed provided that they give the same degree of confidence as if the specified minimum sampling frequency had been followed.

[c] Hourly frequencies relate to production time.

[d] Only applicable for thermoplastic sheets.

[e] No control necessary if using reference values from Table 4.

[f] No control necessary if using reference values from Table 5.

[g] Only applicable for glass-fibre reinforced sheets.

[h] Not necessary for any uncoated product.

[i] Raw material control is required only where raw material is purchased with protective coating already applied.

[j] When the design of the installed assembly/kit is changed.

7.4 Initial inspection of factory and of FPC

Initial inspection of FPC shall be carried out when the production process has been finalized and in operation. The factory and FPC documentation shall be assessed to verify that the requirements of 7.3.2 and 7.3.3 are fulfilled.

During the inspection it shall be verified:

a) that all resources necessary for the achievement of the product characteristics required by this European Standard are in place and correctly implemented, and

b) that the FPC-procedures in accordance with the FPC documentation are followed in practice, and

c) that the product complies with the initial type testing/type testing samples, for which compliance with this European Standard has been verified.

All locations where final assembly or at least final testing of the relevant product is performed, shall be assessed to verify that the above conditions a) to c) are in place and implemented. If the FPC system covers more than one product, 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.

All assessments and their results shall be documented in the initial inspection report.