



SLOVENSKI STANDARD
SIST EN 16153:2013/kFprA1:2014
01-september-2014

Prosojne ploščate večslojne polikarbonatne (PC) plošče za notranje in zunanje strehe, stene in stropne - Zahteve in preskusne metode

Light transmitting flat multiwall polycarbonate (PC) sheets for internal and external use in roofs, walls and ceilings - Requirements and test methods

Lichtdurchlässige, flache Stegmehrfachplatten aus Polycarbonat (PC) für Innen- und Außenanwendungen an Dächern, Wänden und Decken - Anforderungen und Prüfverfahren

Plaques d'éclairage multiparois et planes en polycarbonate (PC) pour usage intérieur ou extérieur dans les toitures, bardages et plafonds - Exigences et méthodes d'essai

Ta slovenski standard je istoveten z: EN 16153:2013/FprA1

ICS:

83.140.10	Filmi in folije	Films and sheets
91.060.01	Stavbni elementi na splošno	Elements of buildings in general

SIST EN 16153:2013/kFprA1:2014 **en,fr,de**

EUROPEAN STANDARD
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FINAL DRAFT
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ICS 83.140.10; 91.060.01

English Version

**Light transmitting flat multiwall polycarbonate (PC) sheets for
internal and external use in roofs, walls and ceilings -
Requirements and test methods**

Plaques d'éclairage multiparois et planes en polycarbonate (PC) pour usage intérieur ou extérieur dans les toitures, bardages et plafonds - Exigences et méthodes d'essai

Lichtdurchlässige, flache Stegmehrfachplatten aus Polycarbonat (PC) 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 16153:2013. 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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
Foreword.....	3
Introduction	4
1 Modification to Table 1	5
2 Modification to 4.3	5
3 Modification to 5.2.1.2	5
4 Modification to 5.6.4.2.1	5
5 Modification to 5.6.4.2.2	6
6 Modification to 5.6.6	7
7 Modification to Clause 6	7
8 Modification to Clause 7	13
9 Modification to Annex ZA	13

Foreword

This document (EN 16153:2013/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 essential requirements of EU Directive(s).

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

Note: Due to fact that the Framework Partnership Agreement between the Commission and CEN & CENELEC is not signed yet, there are currently no New Approach Consultants in place for 2014. Therefore the provisions of CEN-CENELEC Guide 15 cannot be met.

This shall not prevent the processing of draft standards nor the offering of harmonized standards to the Commission. In particular, draft standards can be sent to vote without Consultant assessment.

This note will be removed from the Foreword of the finalized publication.

EN 16153:2013/FprA1:2014 (E)

Introduction

This amendment to EN 16153:2013 takes into account documents TF N 530 Rev2 and TF N 548 Rev1 for the implementation of the Regulation (EU) No.305/2011.

It includes also corrections of errors identified in EN 16153:2013 after the formal vote and not taken into account by CCMC for the publication.

1 Modification to Table 1

In the row "Sound reduction index" replace "R" with " $R_w(C;C_{tr})$ " in the first column.

In the row "Deflection at mid span" replace " S_x " with " s_x " in the first column.

2 Modification to 4.3

In the second paragraph, replace "and the reflexion and transmission characteristics" with "and the reflection and transmission characteristics".

Replace the eighth paragraph with the following:

"For a declared value of the light transmittance equal to 60 %, the actual light transmittance of a sheet may be included between 55 % and 65 %."

3 Modification to 5.2.1.2

Replace Formula (5) with the following:

"

$$\rho_e = \rho_{pe} \left(1 + \frac{\tau_{pe}^2}{1 - \rho_{pe}^2} \right)$$

"

Replace Formula (11) with the following:

"

$$\alpha_{e2} = \alpha_{pe} \frac{\tau_{pe}}{1 - \rho_{pe}}$$

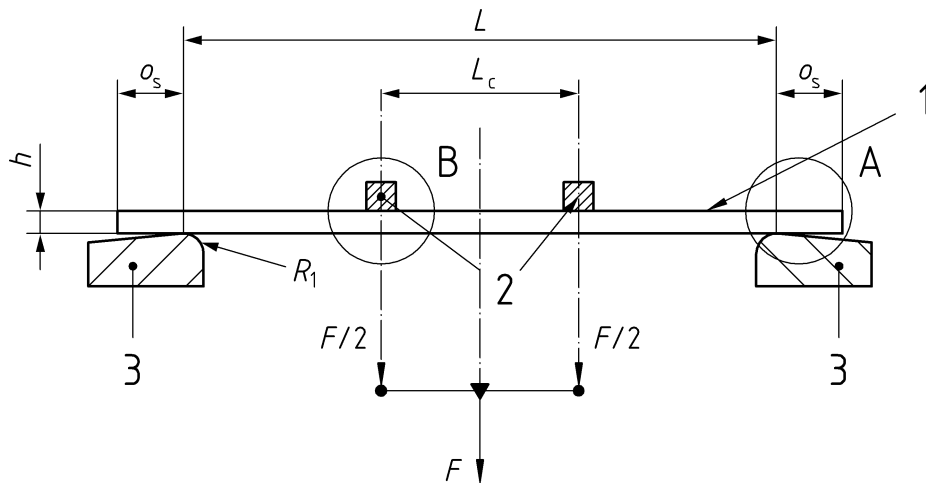
"

4 Modification to 5.6.4.2.1

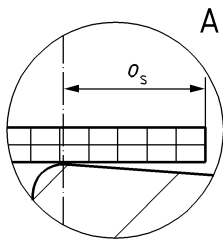
Replace Figure 11 with the following:

"

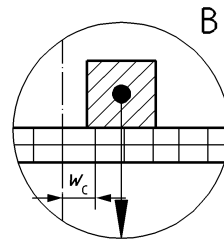
EN 16153:2013/FprA1:2014 (E)



a) General arrangement



b) Detail of the supports



c) Detail of the load points

Key

- 1 test specimen
- 2 loading point
- 3 support
- F applied force
- h overall sheet thickness
- L span
- L_c cross-head span
- o_s sheet overhang
- R_1 radius of supports
- w_c cell size

Figure 11 — Four-point bending test rig"

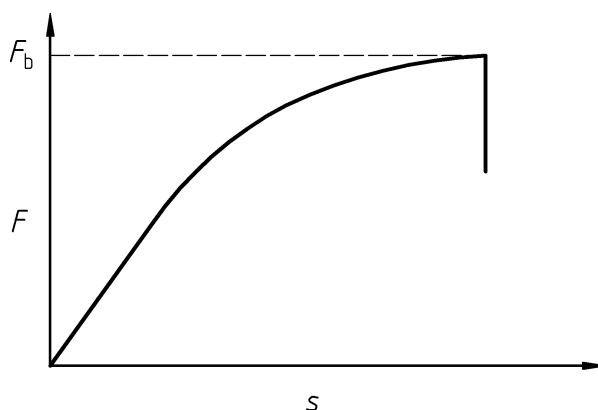
5 Modification to 5.6.4.2.2

Replace the ninth paragraph with the following:

"A typical curve of the applied force, F , versus the deflection, s , is shown in Figure 12. The maximum applied force, F_b , is corresponding to the buckling failure of the multiwall PC sheet."

Replace Figure 12 with the following:

"

**Key** F applied force F_b maximum applied force s deflection**Figure 12 — Typical curve of applied force versus deflection"****6 Modification to 5.6.6***Replace the existing text in item j) with the following:*"j) the mass per unit area (with an accuracy of 1 g/m²) of the test specimens."**7 Modification to Clause 6***Replace Clause 6 with the following:*

"

6 Assessment and verification of constancy of performance – AVCP**6.1 General**

The compliance of light transmitting flat multiwall PC 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).

EN 16153:2013/FprA1:2014 (E)**6.2 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 affect on the determined characteristics.