



SLOVENSKI STANDARD
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Polimerni materiali - Profili iz nemehčanelega polivinilklorida (PVC-U) za uporabo v gradbeništvu - 3. del: Označevanje profilov PVC-UE

Plastics - Unplasticized poly(vinyl chloride) (PVC-U) profiles for building applications - Part 3: Designation of PVC-UE profiles

Kunststoffe - Profile aus weichmacherfreiem Polyvinylchlorid (PVC-U) für die Anwendung im Bauwesen - Teil 3: Bezeichnung von Profilen aus PVC-UE

Plastiques - Profilés en poly(chlorure de vinyle) non plastifié (PVC-U) pour applications dans le bâtiment - Partie 3 : Désignation des profilés en PVC-UE

Ta slovenski standard je istoveten z: prEN 13245-3

[oSIST prEN 13245-3:2024](https://standards.sist.net/sist/prEN/13245-3/2024)

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ICS:

83.140.99	Drugi izdelki iz gume in polimernih materialov	Other rubber and plastics products
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Plastics - Unplasticized poly(vinyl chloride) (PVC-U)
profiles for building applications - Part 3: Designation of
PVC-UE profiles

Plastiques - Profilés en poly(chlorure de vinyle) non
plastifié (PVC-U) pour applications dans le bâtiment -
Partie 3 : Désignation des profilés en PVC-UE

Kunststoffe - Profile aus weichmacherfreiem
Polyvinylchlorid (PVC-U) für die Anwendung im
Bauwesen - Teil 3: Bezeichnung von Profilen aus PVC-
UE

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 249.

If this draft becomes a European Standard, 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.

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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 foreword

This document (prEN 13245-3:2024) has been prepared by Technical Committee CEN/TC 249 “Plastics”, the secretariat of which is held by SIS.

This document is currently submitted to CEN Enquiry.

This document will supersede EN 13245-3:2010.

EN 13245, *Plastics – Unplasticized poly(vinyl chloride) (PVC-U) profiles for building applications*, consists of the following parts:

- *Part 1: Designation of PVC-U profiles*
- *Part 2: PVC-U profiles and PVC-UE profiles for internal and external wall and ceiling finishes*
- *Part 3: Designation of PVC-UE profiles*

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1 Scope

This document establishes a system of designation for profiles made of cellular unplasticized poly(vinyl chloride) (PVC-UE) intended to be used for building applications.

This part is applicable to light coloured and coloured mono-extruded PVC-UE profiles, co-extruded profiles consisting of a core made of PVC-UE and a skin layer of non-cellular unplasticized poly(vinyl chloride) (PVC-U), and PVC-UE profiles with laminated foil or paint.

It specifies test methods and test parameters.

This method of designation is intended to be used in product specification when the application is specified.

Profiles for the management of electrical power cables, communication cables and power track systems used for the distribution of electrical power, profiles for windows or doors and profiles for guttering are not covered by this document¹.

NOTE It is intended to use this method for the designation of PVC-UE profiles for information related to technical literature of the manufacturer, not for the marking of the products.

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 438-2:2016+A1:2018, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (usually called Laminates) — Part 2: Determination of properties*

EN 477, *Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of the resistance to impact of profiles by falling mass*

EN 478, *Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of the appearance after exposure at 150 °C*

EN 479, *Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of heat reversion*

EN 513, *Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of the resistance to artificial weathering*

EN 17271, *Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of the peel strength of profiles laminated with foils*

EN 17410, *Plastics - Controlled loop recycling of PVC-U profiles from windows and doors*

EN 17508, *Plastics - Unplasticized poly(vinyl chloride) (PVC-U) profiles for the fabrication of windows and doors - Terminology of PVC based materials*

EN 17615, *Plastics - Environmental Aspects - Vocabulary*

¹ Profiles that are excluded are in the scopes of standards prepared by CEN/TC 249/WG 21, CENELEC/TC 213 or CEN/TC 128.

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EN 20105-A02, *Textiles - Tests for colour fastness - Part A02: Grey scale for assessing change in colour (ISO 105-A02)*

EN ISO 105-A01:2010, *Textiles - Tests for colour fastness - Part A01: General principles of testing (ISO 105-A01:2010)*

EN ISO 178, *Plastics - Determination of flexural properties (ISO 178)*

EN ISO 179-1, *Plastics - Determination of Charpy impact properties - Part 1: Non-instrumented impact test (ISO 179-1)*

EN ISO 472, *Plastics - Vocabulary (ISO 472)*

EN ISO 877-2, *Plastics - Methods of exposure to solar radiation - Part 2: Direct weathering and exposure behind window glass (ISO 877-2)*

EN ISO 1043-1, *Plastics - Symbols and abbreviated terms - Part 1: Basic polymers and their special characteristics (ISO 1043-1)*

EN ISO 2409, *Paints and varnishes - Cross-cut test (ISO 2409)*

EN ISO 2813, *Paints and varnishes - Determination of gloss value at 20°, 60° and 85° (ISO 2813)*

EN ISO 4624, *Paints and varnishes - Pull-off test for adhesion (ISO 4624)*

EN ISO 4892-2:2013, *Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (ISO 4892-2:2013)*

EN ISO 4892-3:2016, *Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps (ISO 4892-3:2016)*

EN ISO/CIE 11664-1, *Colorimetry — Part 1: CIE standard colorimetric observers (ISO/CIE 11664-1)*

EN ISO/CIE 11664-2, *Colorimetry — Part 2: CIE standard illuminants (ISO/CIE 11664-2)*

EN ISO/CIE 11664-4, *Colorimetry — Part 4: CIE 1976 L*a*b* Colour space (ISO/CIE 11664-4)*

ISO 18314-1, *Analytical colorimetry — Part 1: Practical colour measurement*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17410, EN 17508, EN 17615, EN ISO 472, EN ISO 1043-1 and the following apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 cellular unplasticized poly(vinyl chloride) PVC-UE

unplasticized poly(vinyl chloride) the density of which is reduced by the presence of numerous small cavities (cells), interconnecting or not, dispersed throughout the mass

3.2

PVC-UE profile

profile made of unplasticized poly(vinyl chloride) (PVC-UE) material

3.3

Type of profile

3.3.1

Type 1 profile

PVC-UE profile obtained by a mono-extrusion process (coloured in the mass)

3.3.2

Type 2 profile

PVC-UE profile obtained by a co-extrusion process

3.3.3

Type 3 profile

PVC-UE profile as Type 1 or Type 2 profile with laminated foil

3.3.4

Type 4 profile

PVC-UE profile as Type 1 or Type 2 profile with paint

3.3.5

Type 5 profile

PVC-UE profile as Type 1 or Type 2 covered by a printing process

3.4

sight surface

surface of a profile that is exposed to view, when the PVC-UE profile is installed

3.5

surface finishing

covering layer on the sight surface of a PVC-UE profile, e.g. a co-extruded layer, a laminated foil, a paint, a printing process

3.6

laminated foil

plastic layer for external use intended to cover surfaces of a base profile

Note 1 to entry: Foil can be painted or not.

3.7

printing process

operation or system wherein printing ink or a combination of printing ink and surface coating or varnish is applied

3.8

paint

one or several layer(s) of lacquer (e.g. acrylic or polyurethane resin) or varnish (clear coating material) that cover(s) a PVC-UE profile

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3.9
co-extrusion
 durable bonding of two thermoplastics [e.g. PVC-UE and PVC-U or poly(methyl methacrylate) (PMMA)] that are melted in separated extruders and fused together in the profile tool

3.10
radiant exposure
H

time integral of irradiance

Note 1 to entry: It is measured in joules per square metre (J·m⁻²).

[SOURCE: ISO 9370:2017 [1], 3.27]

4 Designation of PVC-UE profiles

The PVC-UE profiles are designated in accordance with a classification system of their characteristics. The designation consists of a description block and five data blocks as given in Table 1.

Table 1 — Designation of PVC-UE profiles

Data block	Description	Profile EN 13245-3	Additional information
Data block 1	Material and profile type identification	PVC-UE – Type 1, Type 2, Type 3 ^a , Type 4 ^b or Type 5 ^b For types of profiles	See 3.3
Data block 2	Intended application	One or more following codes depending on the intended application: For outside building applications: <i>E</i> For inside building applications: <i>I</i>	
Data block 3	Material properties	Modulus of elasticity in flexure	See 5.1
Data block 4	Profile properties	Nominal linear mass Heat reversion at 75 °C Impact resistance	See 5.2 See 5.3 See 5.4
Data block 5	Durability		See 5.5
^a For Type 3 profiles, the requirements given in 6.1 to 6.4 shall be fulfilled, as applicable. ^b For Type 4 or 5 profiles, the requirements given in 6.1 to 6.3 shall be fulfilled, as applicable.			

5 Codification system for Data block 3 to Data block 5

5.1 Modulus of elasticity in flexure (Data block 3)

The modulus of elasticity in flexure, *E*, shall be measured in accordance with EN ISO 178, as indicated in Table 2.

The test specimens shall be prepared from the finished profile and the sight surface of the profile shall be put on the supports during testing.

The value of the modulus of elasticity in flexure shall be coded according to Table 2.