



SLOVENSKI STANDARD
oSIST prEN 12758:2018
01-november-2018

Steklo v gradbeništvu - Steklo in izolirnost pred zvokom v zraku - Opis proizvoda, opredelitev lastnosti in pravila razširitve

Glass in building - Glazing and airborne sound insulation - Product descriptions, determination of properties and extension rules

Glas im Bauwesen - Glas und Luftschalldämmung - Produktbeschreibungen, Bestimmung der Eigenschaften und Erweiterungsregeln

Verre dans la construction - Vitrages et isolation aux bruits aériens - Descriptions de produits, détermination des propriétés et règles d'extension

Ta slovenski standard je istoveten z: prEN 12758

ICS:

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| 81.040.20 | Steklo v gradbeništvu | Glass in building |
| 91.120.20 | Akustika v stavbah. Zvočna izolacija | Acoustics in building. Sound insulation |

oSIST prEN 12758:2018

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 12758

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ICS 81.040.20; 91.120.20

Will supersede EN 12758:2011

English Version

Glass in building - Glazing and airborne sound insulation - Product descriptions, determination of properties and extension rules

Verre dans la construction - Vitrages et isolement
acoustique - Descriptions de produits, détermination
des propriétés et règles d'extension

Glas im Bauwesen - Glas und Luftschalldämmung -
Produktbeschreibungen, Bestimmung der
Eigenschaften und Erweiterungsregeln

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 129.

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.

This draft European Standard 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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European foreword

This document (prEN 12758:2018) has been prepared by Technical Committee CEN/TC 129 “glass in building”, the secretariat of which is held by NBN.

This document is currently submitted to the Enquiry.

This document will supersede EN 12758:2011.

The main changes compared to the previous version of this standard are:

- a) The calibration procedure has been removed and reference is made to EN ISO 10140-1:2016, Annex D.
- b) Extension rules have been expanded.
- c) The table with typical performance data has been extended.
- d) An annex on the characterization of PVB interlayers has been added.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 12758:2019

<https://standards.iteh.ai/catalog/standards/sist/364ff103-cdba-4359-a6ed-5a7d72b7323e/sist-en-12758-2019>

prEN 12758:2018 (E)**1 Scope**

This document deals with determination and assessment of sound insulation performances of all transparent, translucent and opaque glass products, described in the document for basic, special basic or processed glass products, when intended to be used in glazed assemblies in buildings, and which exhibit properties of acoustic protection, either as a prime intention or as a supplementary characteristic.

This document refers to laboratory measurement method described in EN ISO 10140-1:2016, Annex D and defines extension rules that can be applied without further testing. It also provides typical performance data for a range of common glass products that can be used in the absence of measured data.

All the considerations of this document relate to panes of glass/glass products alone. Incorporation of them into windows may cause changes in acoustic performance as a result of other influences, e.g. frame design, frame material, glazing material/method, mounting method, air tightness, etc. Measurements of the sound insulation of complete windows (glass and frame) may be undertaken to resolve such issues.

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 572-1, *Glass in building — Basic soda lime silicate glass products — Part 1: Definitions and general physical and mechanical properties*

EN 572-2, *Glass in Building — Basic soda lime silicate glass products — Part 2: Float glass*

EN 572-3, *Glass in Building — Basic soda lime silicate glass products — Part 3: Polished wired glass*

EN 572-4, *Glass in building — Basic soda lime silicate glass products — Part 4: Drawn sheet glass*

EN 572-5, *Glass in Building — Basic soda lime silicate glass products — Part 5: Patterned glass*

EN 572-6, *Glass in building — Basic soda lime silicate glass products — Part 6: Wired patterned glass*

EN 572-7, *Glass in Building — Basic soda lime silicate glass products — Part 7: Wired or unwired channel shaped glass*

EN 1036-1, *Glass in building - Mirrors from silver-coated float glass for internal use - Part 1: Definitions, requirements and test methods*

EN 1051-1, *Glass in building — Glass blocks and glass pavers — Part 1: Definitions and description*

EN 1096-1, *Glass in building — Coated glass — Part 1: Definitions and classification*

EN 1279-1, *Glass in Building — Insulating glass units — Part 1: Generalities, dimensional tolerances and rules for the system description*

EN 1748-1-1, *Glass in building — Special basic products — Borosilicate glasses — Part 1-1: Definition and general physical and mechanical properties*

- EN 1748-2-1, *Glass in building — Special basic products — Glass ceramics — Part 2-1: Definitions and general physical and mechanical properties*
- EN 1863-1, *Glass in building — Heat strengthened soda lime silicate glass — Part 1: Definition and description*
- EN 12150-1, *Glass in building — Thermally toughened soda lime silicate safety glass — Part 1: Definition and description*
- EN 12337-1, *Glass in building — Chemically strengthened soda lime silicate glass — Part 1: Definition and description*
- EN 13024-1, *Glass in building — Thermally toughened borosilicate safety glass — Part 1: Definition and description*
- EN 14178-1, *Glass in building — Basic alkaline earth silicate glass products — Part 1: Float glass*
- EN 14179-1, *Glass in building — Heat soaked thermally toughened soda lime silicate safety glass — Part 1: Definition and description*
- EN 14321-1, *Glass in building — Thermally toughened alkaline earth silicate safety glass — Part 1: Definition and description*
- EN 15681-1, *Glass in building — Basic alumino silicate glass products — Part 1: Definitions and general physical and mechanical properties*
- EN 15682-1, *Glass in building — Heat soaked thermally toughened alkaline earth silicate safety glass — Part 1: Definition and description*
- EN 15683-1, *Glass in building — Thermally toughened soda lime silicate channel shaped safety glass — Part 1: Definition and description*
- EN 15755-1, *Glass in building - Adhesive backed polymeric filmed glass - Part 1: Definitions and requirements*
- EN 16477-1, *Glass in building - Painted glass for internal use - Part 1: Requirements*
- EN ISO 10140 (all parts), *Acoustics — Laboratory measurement of sound insulation of building elements*
- EN ISO 717-1, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 717-1:1996)*
- EN ISO 12543-1, *Glass in building — Laminated glass and laminated safety glass — Part 1: Definitions and description of component parts (ISO 12543-1:1998)*
- EN ISO 12543-2, *Glass in building — Laminated glass and laminated safety glass — Part 2: Laminated safety glass (ISO 12543-2:1998)*
- EN ISO 12543-3, *Glass in building — Laminated glass and laminated safety glass — Part 3: Laminated glass (ISO 12543-3:1998)*
- ISO 16940, *Glass in building — Glazing and airborne sound insulation — Measurement of the mechanical impedance of laminated glass*

prEN 12758:2018 (E)**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN ISO 10140 (all parts), EN ISO 717-1 and the following apply.

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

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

3.1**glass product**

product manufactured from glass, i.e. basic glass, special basic glass, processed glass, for use in buildings/constructions

Note 1 to entry: See Clause 5.

3.2**monolithic glass**

single pane of glass, that includes annealed, strengthened/toughened (by heat or chemical treatment), and coated glasses

Note 1 to entry: the term “monolithic excludes laminated glass and laminated safety glass

3.3**insulating glass unit (IGU)**

assembly consisting of at least two panes of glass, separated by one or more spacers, hermetically sealed along the periphery, mechanically stable and durable

3.4**laminated/laminated safety glass**

assembly consisting of one sheet of glass with one or more sheets of glass and/or plastics glazing sheet material joined together with one or more interlayers

3.5**interlayer**

layer or material acting as an adhesive and separator between plies of glass and/or plastics glazing sheet material

3.6**acoustic interlayer**

interlayer that increases the Sound Reduction Index of the laminated glass

Note 1 to entry: The interlayer may be evaluated in accordance to ISO 16940.

3.7**loss factor**

parameter used to describe the damping characteristic of a laminated glass

4 Symbols

For the purposes of this document, the following symbols apply.

| | |
|----------|--|
| R | Sound Reduction Index |
| R_w | Weighted Sound Reduction Index |
| R_{tr} | Sound Reduction Index for Traffic Noise |
| C | Spectrum Adaption Term |
| C_{tr} | Spectrum Adaption Term for Traffic Noise |

5 Glass products

5.1 Basic glasses

These are glass products manufactured from soda lime silicate glass in accordance with EN 572-1 and consist of the following:

- Float glass EN 572-2
- Polished wired glass EN 572-3
- Drawn sheet glass EN 572-4
- Patterned glass EN 572-5
- Wired patterned glass EN 572-6
- Wired and unwired channel shaped glass EN 572-7
- Glass blocks and paver units EN 1051-1

5.2 Special basic glasses

These are glass products manufactured from a variety of compositions, which are in accordance with appropriate European standards, and consist of the following:

- Borosilicate glass EN 1748-1-1
- Glass ceramics EN 1748-2-1
- Alkaline earth silicate glass EN 14178-1
- Alumino silicate glass EN 15681-1

5.3 Processed glasses

5.3.1 Strengthened glasses

These are soda lime silicate glasses that have been strengthened by thermal or chemical means and are as follows:

- Heat strengthened EN 1863-1
- Chemically strengthened EN 12337-1

prEN 12758:2018 (E)**5.3.2 Thermally toughened safety glasses**

These are glasses that have been toughened by thermal treatment and are as follows:

- Thermally toughened soda lime silicate safety glass EN 12150-1
- Thermally toughened borosilicate safety glass EN 13024-1
- Heat soaked thermally toughened soda lime silicate safety glass EN 14179-1
- Thermally toughened alkaline earth silicate safety glass EN 14321-1
- Heat soaked thermally toughened alkaline earth silicate safety glass EN 15682-1
- Thermally toughened soda lime silicate channel shaped safety glass EN 15683-1

5.3.3 Laminated glasses

These are glasses that are in accordance with EN ISO 12543-1 and consist of the following:

- Laminated glass EN ISO 12543-3
- Laminated safety glass EN ISO 12543-2

5.3.4 Coated glasses

These are glass panes that have been coated and are in accordance with EN 1096-1.

Coated glass may be manufactured from any of the glass types referred to in 5.1, 5.2, 5.3.1, 5.3.2 or 5.3.3.

5.3.5 Insulating glass units (IGU)

These are hermetically sealed insulating glass units, containing air or other gas, that are in accordance with EN 1279-1.

An IGU may be manufactured from any of the glass types or combination of the glass types referred to in 5.1, 5.2, 5.3.1, 5.3.2, 5.3.3 or 5.3.4.

5.3.6 Mirrors, painted glass, filmed glass, acid etched glass and sand blasted glass

These are glass products produced in accordance with the following:

- Mirrors EN 1036-1
- Painted glass EN 16477-1
- Adhesive backed polymeric filmed glass EN 15755-1

NOTE Standards for acid etched glass, and for sand blasted glass, are still in development at the time of revision of this standard.

6 Test methods

Acoustic performance data shall be obtained under the conditions specified by EN ISO 10140-1 and EN ISO 717-1.