



**SLOVENSKI STANDARD**  
**SIST EN 12758:2019+A1:2023**

**01-september-2023**

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**Steklo v gradbeništvu - Steklo in izolirnost pred zvokom v zraku - Opis proizvoda, opredelitev lastnosti in pravila razširitve (vključno z dopolnilom A1)**

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

<https://standards.iteh.ai/catalog/standards/sist/b02dd16e-05ee-42e8-96f6-f9fe5caaf929/sist-en-12758-2019a1-2023>

**Ta slovenski standard je istoveten z: EN 12758:2019+A1:2023**

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EUROPEAN STANDARD

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

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

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

This European Standard was approved by CEN on 5 August 2019 and includes Amendment 1 approved by CEN on 10 April 2023.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 12758:2019+A1:2023) has been prepared by Technical Committee CEN/TC 129 “glass in building”, the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by November 2023, and conflicting national standards shall be withdrawn at the latest by November 2023.

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

This document includes Amendment 1 approved by CEN on 10 April 2023.

This document supersedes A1 EN 12758:2019 A1.

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

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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<https://standards.iteh.ai/catalog/standards/sist/b02ddf6e-05ee-42e8-96f6-f9fe5caaf929/sist-en-12758-2019a1-2023>

**EN 12758:2019+A1:2023 (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 European Standards 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* (standards.iteh.ai)

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* 29/sist-

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, system description, rules for substitution, tolerances and visual quality*

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 17257-1:2018,<sup>1</sup> *Glass in building - Acid etched glass - Part 1: Definitions and description*
- EN 17258-1:2018,<sup>2</sup> *Glass in building - Sand blasted glass - Part 1: Definition and description*
- EN ISO 10140 (all parts), *Acoustics — Laboratory measurement of sound insulation of building elements (ISO 10140, all parts)*
- EN ISO 717-1, *Acoustics - Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation (ISO 717-1)*
- EN ISO 12543-1, *Glass in building - Laminated glass and laminated safety glass - Part 1: Definitions and description of component parts (ISO 12543-1)*

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<sup>1</sup> Under preparation. Stage at the time of publication: prEN 17257-1:2018

<sup>2</sup> Under preparation. Stage at the time of publication: prEN 17258-1:2018

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EN ISO 12543-2, *Glass in building - Laminated glass and laminated safety glass - Part 2: Laminated safety glass (ISO 12543-2)*

EN ISO 12543-3, *Glass in building - Laminated glass and laminated safety glass - Part 3: Laminated glass (ISO 12543-3)*

EN ISO 12543-5, *Glass in building - Laminated glass and laminated safety glass - Part 5: Dimensions and edge finishing (ISO 12543-5)*

ISO 16940, *Glass in building — Glazing and airborne sound insulation — Measurement of the mechanical impedance of laminated glass*

**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 <https://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 glass/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**

one or more layer or material acting as an adhesive and separator between panes 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

**3.8****insert**

constituent included in the cavity of an IGU

Note 1 to entry: Examples of inserts include Georgian bars and blinds.

**4 Symbols**

$R$	Sound Reduction Index
$R_w$	Weighted Sound Reduction Index
$R_{A,tr}$	Sound Reduction Index for A weighted urban traffic noise
$C$	Spectrum Adaptation Term for A weighted pink noise
$C_{tr}$	Spectrum Adaptation Term for A weighted urban traffic noise

NOTE A weighted pink noise is used to describe living activities

**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

**EN 12758:2019+A1:2023 (E)****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

**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