

SLOVENSKI STANDARD SIST EN 572-5:2004

01-september-2004

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Glass in Building - Basic soda lime silicate glass products - Part 5: Patterned glass

Glas im Bauwesen - Basiserzeugnisse aus Kalk-Natronsilicatglas Teil 5: Ornamentglas

Verre dans la construction - Produits de base. Verre de silicate sodo-calcique - Partie 5: Verre imprimé

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Ta slovenski standard je istoveten 2:09b/sEN 572-5:2004

ICS:

81.040.20 Steklo v gradbeništvu Glass in building

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EUROPEAN STANDARD NORME EUROPÉENNE

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English version

Glass in Building - Basic soda lime silicate glass products - Part 5: Patterned glass

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This European Standard was approved by CEN on 1 April 2004.

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This European Standard exists 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 Central Secretariat has the same status as the official versions.

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

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EN 572-5:2004 (E)

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Foreword

This document (EN 572-5:2004) has been prepared by Technical Committee CEN/TC 129 "Glass in Building", the secretariat of which is held by IBN.

This document supersedes EN 572-5:1994.

This European Standardshall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2004, and conflicting national standards shall be withdrawn at the latest by December 2004.

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).

This European Standard "Glass in building – Basic soda lime silicate glass products" consists of the following parts:

EN 572-1	Definitions and general physical and mechanical properties		
EN 572-2	Float glass		
EN 572-3	Polished wire glass STANDARD PREVIEW		
EN 572-4	Drawn sheet glass (standards.iteh.ai)		
EN 572-5	Patterned glass <u>SIST EN 572-5:2004</u>		
EN 572-6	Wired patterned glass wist-ai/catalog/standards/sist/eed8ad87-70cc-41b0-ae34-e06ff8e4e09b/sist-en-572-5-2004		
EN 572-7	N 572-7 Wired or unwired channel shaped glass		
EN 572-8	Supplied and final cut sizes		
EN 572-9	Evaluation of conformity/Product standard		

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Scope

This Part of this European Standard specifies dimensional and minimum quality requirements (in respect of visual and pattern faults) for patterned glass as defined in EN 572-1, for use in building.

This Part of this standard applies only to patterned glass supplied in rectangular panes and in stock sizes.

EN 572-8 gives information on patterned glass in sizes other than those covered by this Part.

Normative references 2

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 572-1:2004, Glass in building — Basic soda lime silicate glass products — Part 1: Definitions and general physical and mechanical properties.

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Terms and definitions 3

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For the purposes of this European Standard, the terms and definitions given in EN 572-1:2004 and the following apply.

3.1

e06ff8e4e09b/sist-en-572-5-2004 length, H, and width, B

defined with reference to the direction of draw of the glass ribbon as shown in Figure 1

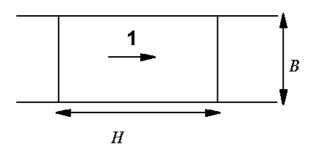


Figure 1 — Relationship between length, width and direction of draw

Key

direction of draw

3.2

stock sizes

glass delivered in the following sizes:

Nominal length H: 2 100 mm to 4 500 mm

Nominal width B: 1 260 mm to 2 520 mm

NOTE The maximum stock sizes available depend on the manufacturer and the pattern.

3.3

visual faults

faults, which alter the visual quality of the glass. They include spot faults, linear/extended faults and pattern faults

3.4

spherical or quasi-spherical spot faults

spot faults whose larger dimension is less than or equal to twice the smaller dimension

3.5

elongated spot faults

spot faults whose larger dimension is more than twice the smaller dimension

3.6

linear/extended faults

faults, which can be on or in the glass, in the form of deposits, marks or scratches which occupy an extended length or area

3.7

pattern faults

deviations of the pattern relative to a reference, e.g. line or straight edge

3.8

deviation of the pattern

deviation, x, of the pattern

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4 Dimensional requirements

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4.1 Thickness

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4.1.1 General

The actual thickness shall be the average of four measurements, taken to the nearest 0.01 mm, one taken at the thickest and closest point to the centre of each side. Measurement shall be by means of an instrument of the plate gauge type with a diameter of $50 \text{ mm} \pm 5 \text{ mm}$.

NOTE The mechanical resistance of patterned glass is a function of the pattern as well as the thickness.

4.1.2 Tolerances

The actual thickness rounded to the nearest 0,1 mm shall not vary from the nominal thickness by more than the tolerances shown in Table 1.

Table 1 —	Tolerances	on n	ominal	thickness

Nominal thickness (mm)	Tolerances (mm)
3	± 0,5
4	± 0,5
5	± 0,5
6	± 0,5
8	± 0,8
10	± 1,0

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4.2 Length, width and squareness

4.2.1 General

The nominal dimensions for length, H and width, B, being given, the pane shall not be larger than a prescribed rectangle resulting from the nominal dimensions increased by the permissible plus tolerance, t, or smaller than a prescribed rectangle reduced by the permissible minus tolerance, t.

The sides of the prescribed rectangles shall be parallel to one another and these rectangles shall have a common centre (see Figure 2).

The limits of squareness shall also be prescribed by these rectangles.

4.2.2 Tolerances

The tolerances, t, (see Figure 2) on the nominal dimensions length, H, and width, B, are dependant on the thickness of the glass and are shown in Table 2.

Table 2 — Tolerances, t, on length, H, and width, B, according to the nominal thickness of the glass

Nominal thickness	Tolerances, t
(mm)	(mm)
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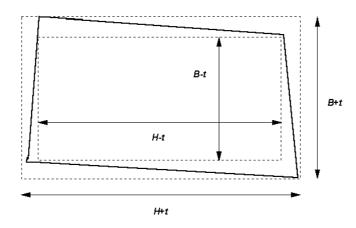


Figure 2 — Determination of length, width and squareness

5 Quality requirements

5.1 General

One quality level is considered in this standard. This is determined by evaluation of the visual faults.

There are three different types of pattern faults considered which may occur simultaneously. They are shown in Figure 3 and are:

- out of square;
- waviness;
- bow.

5.2 Methods of observation and measurement

5.2.1 Visual faults

5.2.1.1 Spot and linear/extended faults

The glass pane to be examined is illuminated in conditions approximating to diffuse daylight and is observed in front of a matt grey screen.

Place the pane of glass to be examined vertically 3 m in front of the parallel to the screen. Arrange the point of observation 1,5 m from the glass, keeping the direction of observation normal to the glass surface.

View the pane of glass, and note the presence of visually disturbing faults.

a) Spot faults

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Measure the dimensions of these faults with a micrometer with graduations in tenths of a millimetre. Note the number, dimensions and concentration of the spot faults. 101, 211

Linear/extended faults

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Note the number of these faults.

5.2.1.2 Pattern faults

A reference, e.g. line or straight edge, is placed on the glass as shown in Figure 3. The deviation, x, of the pattern in relation to this reference is measured.

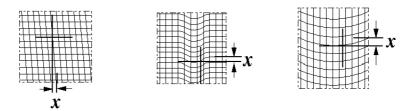


Figure 3 — Representations of the types of pattern faults

5.3 Acceptance levels

5.3.1 Spot faults

Spherical and quasi-spherical spot faults. a)

If the larger dimension is \leq 2,0 mm, they are acceptable with restriction.

If the larger dimension is > 2.0 mm and ≤ 5.0 mm, they are acceptable up to 2 in any 1 m \times 1 m area.