BS EN 572-7:2012

BSI Standards Publication

Glass in building — Basic soda lime silicate glass products

Part 7: Wired or unwired channel shaped glass

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National foreword

This British Standard is the UK implementation of EN 572-7:2012. It supersedes BS EN 572-7:2004 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/520/1, Basic and transformed glass products.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Date	Text affected

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EN 572-7

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English Version

Glass in building - Basic soda lime silicate glass products - Part 7: Wired or unwired channel shaped glass

Verre dans la construction - Produits de base: verre de silicate sodo-calcique - Partie 7: Verre profilé armé ou non armé

Glas im Bauwesen - Basiserzeugnisse aus Kalk-Natronsilicatglas - Teil 7: Profilbauglas mit oder ohne Drahteinlage

This European Standard was approved by CEN on 11 May 2012.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 572-7:2012) 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of an identical text or by endorsement, at the latest by January 2013, and conflicting national standards shall be withdrawn at the latest by January 2013.

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

This document supersedes EN 572-7:2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This edition is a revision of EN 572-7:2004. The main change in this edition is a new method of determination of squareness.

This European Standard “*Glass in building — Basic soda lime silicate glass products*” consists of the following parts:

— Part 1: Definitions and general physical and mechanical properties;

— Part 2: Float glass;

— Part 3: Polished wired glass;

— Part 4: Drawn sheet glass;

— Part 5: Patterned glass;

— Part 6: Wired patterned glass;

— Part 7: Wired or unwired channel shaped glass;

— Part 8: Supplied and final cut sizes;

— Part 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, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies dimensional and minimum quality requirements (in respect of visual and wire faults) for channel shaped glass, as defined in EN 572-1:2012, for use in building.

This European Standard covers channel shaped glass supplied in stock sizes and final cut sizes.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 572-1:2012, *Glass in building — Basic soda lime silicate glass products — Part 1: Definitions and general physical and mechanical properties*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 572-1:2012 and the following apply.

3.1
patterned channel shaped glass
channel shaped glass with a pattern on the web surface

Note 1 to entry: A number of different patterns are available.

Note 2 to entry: Patterns might be on one or both surfaces of the web.

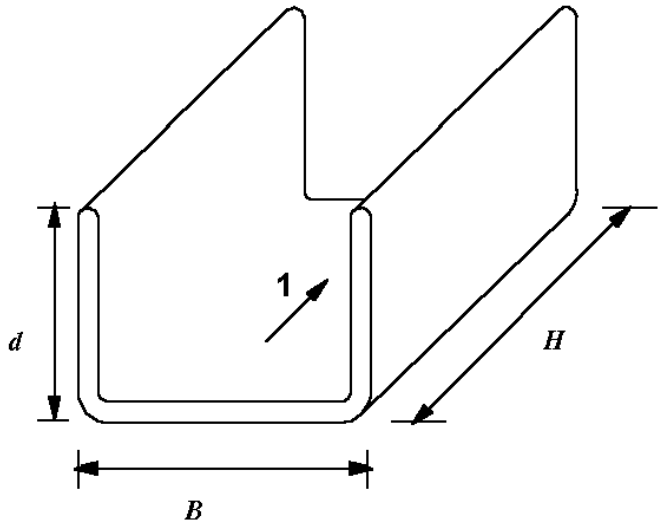
3.2
wired channel shaped glass
channel shaped glass which has a wire inlay in the web

Note 1 to entry: This means that the wire runs across the width, *B*, and in the direction of the length, *H*.

Note 2 to entry: Additional wires might also be in the flanges.

3.3
length, H, width, B, and flange height, d
defined with reference to the direction of draw of the glass ribbon as shown in Figure 1

Note 1 to entry: All corners are rounded.



Key

1 direction of draw

Figure 1 — Relationship between U-channel dimensions and direction of draw

3.4
stock sizes
glass delivered in the standard stock sizes:

– nominal length, H: supplied in multiples of 250 mm;

– nominal width, B: range from 232 mm to 498 mm;

– nominal height of flange, d: either 41 mm or 60 mm

Note 1 to entry: Maximum length, H, available: 7 000 mm.

Note 2 to entry: Not all widths, B, are available with all flange heights, d.

3.5
visual fault
fault which alters the visual quality of the glass

Note 1 to entry: Visual faults include bubbles, ream, scratches and inclusions and where applicable wire faults.

3.6
flange deviation
deviation, z, of flange from the vertical

Note 1 to entry: See Figure 2.

3.7
wire fault
deviation of the wire resulting in penetration of the glass surface by the wire or break in the wire in the body of the glass

3.8
deviation of the wire
deviation, y, of the wire relative to a reference such as a line or straight edge

Note 1 to entry: See Figure 4.

4 Dimensional requirements

4.1 Method of measurement

4.1.1 Width, *B*, and height of flange, *d*

The width and height of flange are measured at both cut ends of the piece using a vernier calliper with an accuracy of 0,1 mm.

4.1.2 Length, *H*

The length is measured at the centre of the web.

4.1.3 Thickness, *c*

The actual thickness is measured at both cut ends. Measurements, to an accuracy of 0,1 mm, are made in the centre of the web and flanges. Measurement should be made by means of an instrument of the plate gauge type with a diameter of (50 ± 5) mm.

4.1.4 Flange deviation

The deviation of the flange, *z*, from perpendicular to the web is determined with a right angle, as shown in Figure 2.

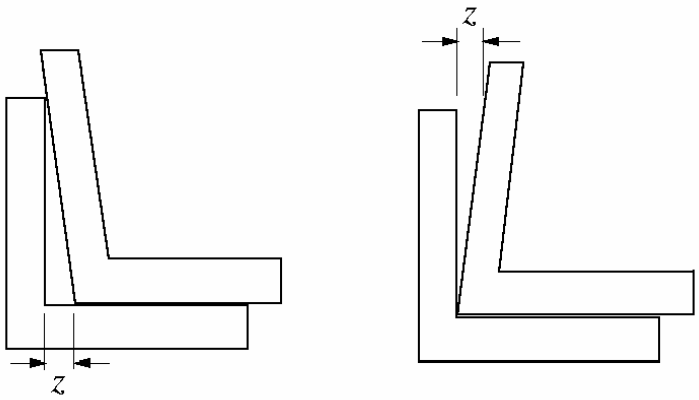


Figure 2 — Determination of flange deviation

4.1.5 Squareness of cut

The out of squareness of the web and flanges is determined at both cut ends. It is measured relative to a plane perpendicular to the direction of draw of the glass at the intersection of the centre line of the web and of the cut edge (see Figure 3). The deviation of the flange plane is measured.

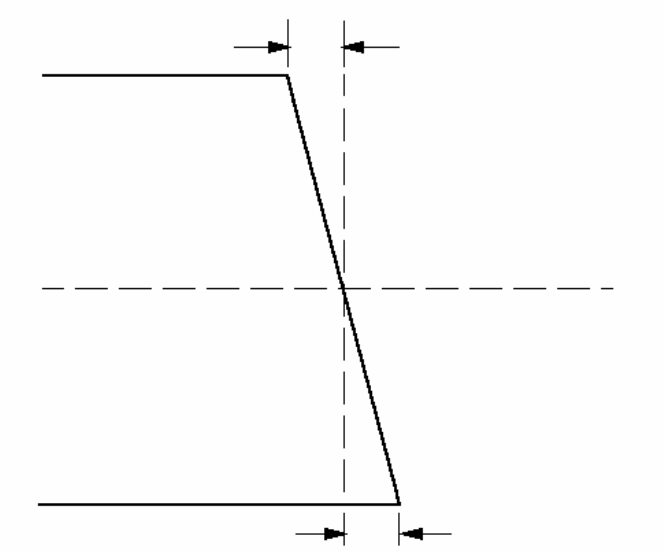


Figure 3 — Determination of squareness of cut

4.1.6 Wire inlay

The relationship between the width of the wire inlay, in the web, and the width, B, of the web should be obtained by measurement. The actual distance between adjacent wires should be measured together with any variation in the spacing. The diameter of the wire should be measured.

4.2 Tolerances

4.2.1 Width, B, height of flange, d, and thickness c

All measured values shall comply with Table 1.

4.2.2 Length

The tolerance on measured length, H, is ± 3,0 mm.

4.2.3 Flange deviation

The flange deviation, z, (see Figure 2) should not exceed 1,0 mm.

4.2.4 Squareness of cut

The deviation of the squareness of cut (see Figure 3) shall not exceed 3 mm.

4.2.5 Wire inlay

The wire inlay shall cover at least 75 % of the web width, B. The maximum distance between adjacent wires shall not exceed 35 mm. The allowable tolerance between adjacent wires is ± 6 mm. The diameter of the wire should be between 0,3 mm and 0,7 mm.

5 Quality requirements

5.1 General

One quality level is considered in this European Standard. This is determined by evaluation of the visual and wire faults.

5.2 Methods of observation and measurement

5.2.1 Visual faults

The piece of channel shaped glass to be examined is illuminated in conditions approximating to diffuse daylight and is observed in front of a white background.

Place the glass to be examined vertically in front of the screen. Arrange the point of observation 2 m from the glass, keeping the direction of observation normal to the glass surface.

Note the presence of bubbles, ream, scratches and inclusions.

Table 1 — Tolerances on nominal width, B, height of flange, d, and thickness c

Dimensions in millimetres

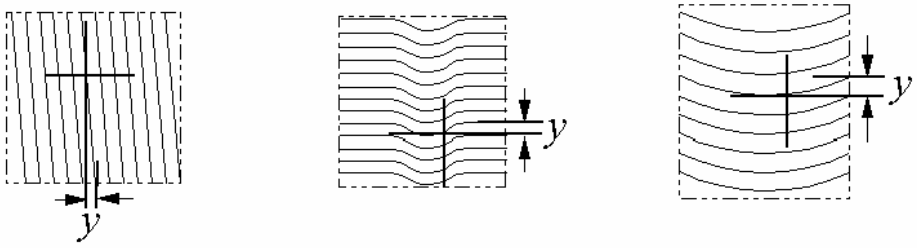
Width, B		Height of flange, d		Thickness, c	
Nominal	**Tolerance**	**Nominal**	**Tolerance**	**Nominal**	**Tolerance**
232 to 498	± 2,0	41	± 1,0	6	± 0,2
232 to 331	± 2,0	60	± 1,0	7	± 0,2

5.2.2 Wire faults

A reference, e.g. line or straight edge, is placed parallel to the direction of the wires. The deviation, y, of the wire inlay in relation to this reference edge is measured (see Figure 4).

Any penetration of the glass surface by the wire is noted.

Any breaks in the wire are noted.



a) Out of square **b) Waviness** **c) Bow**

NOTE The scale of these drawings has been exaggerated in order to be explicit about the types of deviation.

Figure 4 — Determination of wire deviation

5.3 Acceptance levels

5.3.1 Visual faults

Bubbles, ream, scratches or inclusions visible in the conditions defined in 5.2 are not allowed.

5.3.2 Wire faults

Acceptance levels of wire faults:

a) The deviation, y, (see Figure 4) shall not exceed 5 mm per metre.

b) In no case is the wire inlay allowed to penetrate the surface.

c) Breaks in the wire are not acceptable.

6 Designation

Wired or unwired channel shaped glasses in compliance with this European Standard shall be designated respectively by

— type (wired or unwired glass),

— reference to this European Standard,

— tint (manufacturer's reference) or clear,

— pattern (manufacturer's reference) or not,

— nominal thickness in mm,

— nominal width, B, in mm,

— nominal height of flange, d, in mm,

— nominal length, H, in mm.

EXAMPLE Wired channel shaped glass, clear, pattern reference 'PATTERN', thickness 6 mm, width 26,2 cm, height of flange 41 mm, length 1,50 m, intended for use in building, is designated as follows:

Wired channel shaped glass - EN 572-7 - clear 'PATTERN', 6 mm, 262 mm, 41 mm, 1 500 mm

Bibliography

[1] EN 572-9, *Glass in building — Basic soda lime silicate glass products — Part 9: Evaluation of conformity/Product standard*

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