SLOVENSKI STANDARD
kSIST FprEN 15683-1:2013

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Steklo v gradbeništvu - Toplotno kaljeno natrij-kalcijevo silikatno utorjeno varnostno steklo - 1. del: Definicije in opis

Glass in building - Thermally toughened soda lime silicate channel shaped safety glass - Part 1: Definition and description

Glas im Bauwesen - Thermisch vorgespanntes Kalknatron-Profilbau-Sicherheitsglas - Teil 1: Definition und Beschreibung

Verre dans la construction - Verre de silicate sodo-calcique profilé de sécurité trempé thermiquement - Partie 1 : Définition et description

Ta slovenski standard je istoveten z: **FprEN 15683-1**

ICS:

81.040.20	Steklo v gradbeništvu	Glass in building

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (FprEN 15683-1:2012) 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 Unique Acceptance Procedure.

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

EN 15863 is composed of the following parts:

— FprEN 15683-1, *Glass in building — Thermally toughened soda lime silicate channel shaped safety glass — Part 1: Definition and description*;

— FprEN 15683-2, *Glass in building — Thermally toughened soda lime silicate channel shaped safety glass — Part 2: Evaluation of conformity/Product standard*.

Introduction

Thermally toughened soda lime silicate channel shaped safety glass has a safer breakage behaviour when compared with annealed glass.

1 Scope

This European Standard specifies tolerances, flatness of web and flanges, flange deviation, edgework, fragmentation and physical and mechanical characteristics of monolithic thermally toughened soda lime silicate channel shaped safety glass for use in buildings.

Other requirements, not specified in this document, can apply to thermally toughened soda lime silicate channel shaped safety glass, which undergoes an additional treatment, e.g. coating. The additional requirements are specified in the appropriate product standard FprEN 15683-2:2012. Thermally toughened soda lime silicate channel shaped safety glass, in this case, does not lose its mechanical or thermal characteristics.

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

EN 572-7:2004, *Glass in Building — Basic soda lime silicate glass products — Part 7: Wired or unwired channel shaped glass*

EN 1288-4, *Glass in building — Determination of the bending strength of glass — Part 4: Testing of channel shaped glass*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
thermally toughened soda lime silicate channel shaped safety glass
glass within which a permanent surface compressive stress has been induced by a controlled heating and cooling process in order to give it greatly increased resistance to mechanical and thermal stress and prescribed fragmentation characteristics

Note 1 to entry: The mechanical properties, i.e. thermal durability and mechanical strength, and safety properties, i.e. fragmentation characteristics, are generated by the level of surface compression. These properties are not size dependent.

3.2
enamelled thermally toughened soda lime silicate channel shaped safety glass
thermally toughened soda lime silicate channel shaped safety glass which has a ceramic frit fired into the surface during the toughening process becoming an integral part of the glass after toughening

3.3
horizontal toughening
process in which the glass is supported on horizontal rollers

[SOURCE: EN 12150-1:2000, 3.4]

4 Glass products

Thermally toughened soda lime silicate channel shaped safety glass shall be made from a monolithic glass generally corresponding to the following standard:

— basic soda lime silicate glass products – unwired channel shaped glass according to EN 572-1 and EN 572-7;

— this may also be coated in accordance with EN 1096-1.

5 Fracture characteristics

In the event of breakage, thermally toughened soda lime silicate channel shaped safety glass fractures into numerous small pieces, the edges of which are generally blunt.

NOTE Fragmentation in service does not always correspond to that described in Clause 8, due to restraint from fixing or due to the cause of fracture.

6 Dimensions and tolerances

6.1 General

The dimensions of thermally toughened soda lime silicate channel shaped safety glass are shown in Figure 1. These are glass thickness (c), width (B), length (H) and flange height (d).

6.2 Dimensions and dimensional tolerances

6.2.1 Nominal thickness (c) and thickness tolerances

The nominal thicknesses and thickness tolerances shall be those given are in Table 1.

NOTE The tolerances of width, height of flange and thickness are those given in EN 572-7:2004, Table 1. Table 1 of FprEN 15683-1:2012 was extended by the length H.

The thickness shall be determined as for the basic product.

6.2.2 Width, flange height and length (sizes)

6.2.2.1 General

Thermally toughened soda lime silicate channel shaped safety glass dimensions are quoted as follows:

— the type which defines the width, B, the flange height, d, and the thickness, c; and

— the length, H.

EXAMPLE 232/41/6 – 4 000.

The type may be given as a code rather than the full specification.