

Glass in building - Heat soaked thermally toughened soda lime silicate safety glass - Part 1: Definition and description

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14179-1:2005 sisaldab Euroopa standardi EN 14179-1:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 29.08.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14179-1:2005 consists of the English text of the European standard EN 14179-1:2005.</p> <p>This document is endorsed on 29.08.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This European Standard specifies the heat soak process system together with tolerances flatness, edgework, fragmentation and physical and mechanical characteristics of monolithic flat heat soaked thermally toughened soda lime silicate safety glass for use in buildings.</p>	<p>Scope:</p> <p>This European Standard specifies the heat soak process system together with tolerances flatness, edgework, fragmentation and physical and mechanical characteristics of monolithic flat heat soaked thermally toughened soda lime silicate safety glass for use in buildings.</p>
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English version

Glass in building - Heat soaked thermally toughened soda lime
silicate safety glass - Part 1: Definition and description

Verre dans la construction - Verre de silicate sodo-calcique
de sécurité trempé et traité Heat Soak - Partie 1: Définition
et description

Glas im Bauwesen - Heißgelagertes thermisch
vorgespanntes Kalknatron-Einscheibensicherheitsglas -
Teil 1: Definition und Beschreibung

This European Standard was approved by CEN on 19 May 2005.

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Contents

Page

Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Glass products	7
5 Manufacturing processes	7
5.1 General	7
5.2 Toughening process	7
5.3 Heat soak process cycle	8
6 Heat soak process system	9
6.1 General	9
6.2 Oven	9
6.3 Glass support	9
6.4 Glass separation	9
6.5 Calibration	11
7 Fracture characteristics	11
8 Dimensions and tolerances	11
8.1 Nominal thickness and thickness tolerances	11
8.2 Width and length (sizes)	12
8.3 Flatness	14
9 Edge work, holes, notches and cut-outs	17
9.1 Warning	17
9.2 Edge working of glass for toughening	17
9.3 Profiled edges	18
9.4 Round holes	18
9.5 Notches and cut-outs	21
9.6 Shaped panes	21
10 Fragmentation test	22
10.1 General	22
10.2 Dimensions and number of test specimens	22
10.3 Test procedure	22
10.4 Assessment of fragmentation	23
10.5 Minimum values from the particle count	24
10.6 Selection of the longest particle	24
10.7 Maximum length of longest particle	24
11 Other physical characteristics	24
11.1 Optical distortion	24
11.2 Anisotropy (iridescence)	24
11.3 Thermal durability	25
11.4 Mechanical strength	25
11.5 Classification of performance under accidental human impact	25
12 Marking	25
Annex A (normative) Heat soak process system calibration test	26
A.1 Calibration criteria	26

A.2	Loading of oven and position for glass surface temperature measurement	26
A.3	Procedure	27
A.4	Records	27
A.5	Interpretation of the calibration test	28
Annex B (informative)	Curved heat soaked thermally toughened soda lime silicate safety glass	37
Annex C (informative)	Examples of particle count	38

Foreword

This European Standard (EN 14179-1:2005) has been prepared by Technical Committee CEN/TC 129 "Glass in building", the secretariat of which is held by IBN/BIN.

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 December 2005, and conflicting national standards shall be withdrawn at the latest by December 2005.

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

This Part of the European Standard does not stand-alone, it is a part of one standard:

- EN 14179-1: Glass in building – Heat soaked thermally toughened soda lime silicate safety glass – Part 1: Definition and description;
- EN 14179-2: Glass in building – Heat soaked thermally toughened soda lime silicate safety glass – Part 2: 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.

Introduction

Heat soaked thermally toughened soda lime silicate safety glass has a safer breakage behaviour when compared with annealed glass. It also has a known level of residual risk of spontaneous breakage arising from the possible presence of critical nickel sulphide (NiS) inclusions in the thermally toughened soda lime silicate glass.

NOTE 1 This case deals with extremely large quantities of glass. These quantities are dealt with on a statistical basis. Therefore it is impossible to select a quantity of heat soaked thermally toughened soda lime silicate safety glass, for a building, and claim that 'no break' by NiS inclusion can occur. The breakage of heat soaked thermally toughened soda lime silicate safety glass caused by other influences is excluded.[sl1]

When used to offer protection under accidental human impact, heat soaked thermally toughened soda lime silicate safety glass also should be classified according to EN 12600 (all parts).

NOTE 2 CEN/TC 129/WG 8 is producing standards for the determination of the design strength of glass and is preparing a design method.

The European Committee for Standardization (CEN) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning Heat Soak Tests. CEN takes no position concerning the evidence, validity and scope of this patent right. The holder of this patent right has assured CEN that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with CEN. Information may be obtained from:

SAINT-GOBAIN GLASS FRANCE

Les Miroirs – 92096 La Défense Cedex

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

1 Scope

This European Standard specifies the heat soak process system together with tolerances flatness, edgework, fragmentation and physical and mechanical characteristics of monolithic flat heat soaked thermally toughened soda lime silicate safety glass for use in buildings.

Information on curved heat soak thermally toughened soda lime silicate safety glass is given in Annex B, but this product does not form part of this European Standard.

Other requirements, not specified in this European Standard, can apply to heat soaked thermally toughened soda lime silicate safety glass which is incorporated into assemblies, e.g. laminated glass or insulating units, or undergo an additional treatment, e.g. coating. The additional requirements are specified in the appropriate product standard. Heat soak thermally toughened soda lime silicate safety glass, in this case, does not lose its mechanical or thermal characteristics.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. 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 572-4, *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 1096-1, *Glass in building — Coated glass — Part 1: Definitions and classification*

3 Terms and definitions

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

3.1

heat soaked thermally toughened soda lime silicate safety glass

glass within which a permanent surface compressive stress has been induced in order to give it greatly increased resistance to mechanical and thermal stress and prescribed fragmentation characteristics and which has a known level of residual risk of spontaneous breakage due to the presence of critical nickel sulphide (NiS) inclusions

3.2

level of residual risk

risk of spontaneous breakage of heat soaked thermally toughened soda lime silicate safety glass, on a statistical basis, due to the presence of critical nickel sulphide inclusions, is no more than one breakage per 400 tonnes of heat soaked thermally toughened soda lime silicate safety glass

3.3

flat heat soaked thermally toughened soda lime silicate safety glass

heat soaked thermally toughened soda lime silicate safety glass that has not been deliberately given a specific profile during manufacture