EESTI STANDARD EVS-EN 1863-1:2000

Glass in building - Heat strengthened soda lime silicate glass - Part 1: Definition and description

Glass in building - Heat strengthened soda lime silicate glass - Part 1: Definition and description

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

Käesolev Eesti standard EVS-EN 1863-1:2000 sisaldab Euroopa standardi EN 1863-1:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 17.07.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1863-1:2000 consists of the English text of the European standard EN 1863-1:2000. This document is endorsed on 17.07.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

NATIONAL FOREWORD

Käsitlusala: This European Standard specifies tolerances, flatness, edge work, fragmentation and psysical and mechanical characteristics of monolithic flat heat strengthened glass for use in buildings. Information on curved heat strengthened glass is given in annex B, but this product does not form part of this standard. Other requirements, not specified in this standard, can apply to heat strengthened 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 strengthened glass, in this case, does not lose its mechanical or thermal characteristics.	**Scope:** This European Standard specifies tolerances, flatness, edge work, fragmentation and psysical and mechanical characteristics of monolithic flat heat strengthened glass for use in buildings. Information on curved heat strengthened glass is given in annex B, but this product does not form part of this standard. Other requirements, not specified in this standard, can apply to heat strengthened 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 strengthened glass, in this case, does not lose its mechanical or thermal characteristics.

ICS 81.040.20

Võtmesõnad: construction, dimensional tolerances, dimensions, fabrication, flatness, fragmentation, glass, glazing, marking, mechanical properties, physical properties, tests, thermal resistance

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1863-1

January 2000

ICS 81.040.20

English version

Glass in building

Heat strengthened soda lime silicate glass

Part 1: Definition and description

Verre dans la construction – Verre de silicate sodo-calcique durci thermiquement – Partie 1: Définition et description

Glas im Bauwesen – Teilvorgespanntes Kalknatronglas – Teil 1: Definition und Beschreibung

This European Standard was approved by CEN on 1999-03-22.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Ref. No. EN 1863-1 : 2000 E

Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 129 "Glass in building", the secretariat of which is held by IBN.

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 July 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.

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

Introduction

Heat strengthened soda lime silicate glass has a higher resistance to thermal stress and an enhanced mechanical strength when compared to annealed glass.

NOTE 1: CEN/TC129/WG8 is producing standards for the determination of the design strength of glass and is preparing a design method.

NOTE 2: CEN/TC129/WG2 is preparing a standard for production control and evaluation of conformity.

1 Scope

This European Standard specifies tolerances, flatness, edgework, fragmentation and physical and mechanical characteristics of monolithic flat heat strengthened soda lime silicate glass for use in buildings.

Information on curved heat strengthened soda lime silicate glass is given in annex B, but this product does not form part of this standard.

Other requirements, not specified in this standard, can apply to heat strengthened soda lime silicate 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 strengthened soda lime silicate glass, in this case, does not lose its mechanical or thermal characteristics.

2 Normative references

This European Standard incorporates by dated or undated reference, 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 be 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.

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 673	Glass in building - Determination of thermal transmittance (U value) - Calculation Method
prEN 1096-1	Glass in building - Coated glass - Part 1: Definitions and classification
prEN 1288-3	Glass in building - Determination of the bending strength of glass - Part 3: Test with specimen supported at two points (four point bending)

3 Definitions

For the purposes of this European Standard the following definitions apply:-

3.1 heat strengthened soda lime silicate glass: Glass within which a permanent surface compressive stress has been induced by a controlled heating and cooling process in order to give it increased resistance to mechanical and thermal stress and prescribed fracture characteristics.

3.2 flat heat strengthened soda lime silicate glass: Heat strengthened soda lime silicate glass which has not been deliberately given a specific profile during manufacture.

3.3 enamelled heat strengthened soda lime silicate glass: Heat strengthened soda lime silicate glass which has a ceramic frit fired into the surface during the heat strengthening process. After heat strengthening the ceramic frit becomes an integral part of the glass.

NOTE: In the UK, this glass is also known as opaque heat strengthened soda lime silicate glass.

3.4 horizontal process: Process in which the glass is supported on horizontal rollers.

3.5 vertical process: Process in which the glass is suspended by tongs.

4 Glass products

Heat strengthened soda lime silicate glass is made from a monolithic glass generally corresponding to one of the following standards:

- soda lime silicate glass according to EN 572-1
- float glass according to EN 572-2
- drawn sheet glass according to EN 572-4
- patterned glass according to EN 572-5
- coated glass according to prEN 1096-1.

Other nominal thicknesses of glass than those covered in the above standards are possible.