

EHITUSKLAAS. ALUMIINIUM-SILIKAATKLAASIST
PÕHITOOTED. OSA 1: MÄÄRATLUSED JA ÜLDISED
FÜÜSIKALISED NING MEHAANILISED OMADUSED

Glass in building - Basic alumino silicate glass products -
Part 1: Definitions and general physical and mechanical
properties

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15681-1:2016 sisaldab Euroopa standardi EN 15681-1:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 15681-1:2016 consists of the English text of the European standard EN 15681-1:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 27.01.2016.	Date of Availability of the European standard is 27.01.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 81.040.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Aru 10, 10317 Tallinn, Eesti; koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

**Glass in building - Basic alumino silicate glass products -
Part 1: Definitions and general physical and mechanical
properties**

Verre dans la construction - Produits de base : verre
aluminosilicate - Partie 1 : Définitions et propriétés
physiques et mécaniques générales

Glas im Bauwesen - Basiserzeugnisse aus Alumo-
Silicatglas - Teil 1: Definitionen und allgemeine
physikalische und mechanische Eigenschaften

This European Standard was approved by CEN on 30 November 2015.

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 CEN-CENELEC Management Centre or to any CEN member.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions	4
4 Chemical composition	6
4.1 General.....	6
4.2 Tint	6
5 Physical and mechanical characteristics.....	6
5.1 General characteristics.....	6
5.2 Characteristic bending strength.....	7
5.3 Designation of clear alumino silicate glass.....	7
5.3.1 General.....	7
5.3.2 Clear transparent alumino silicate glass	8
5.3.3 Clear translucent alumino silicate glass.....	8
5.4 Stability of physical and chemical characteristics	9
6 Dimensional requirements.....	9
6.1 Manufacturing dimensions.....	9
6.1.1 Stock sizes.....	9
6.1.2 Supplied and final cut sizes	9
6.2 Thickness and thickness tolerances.....	9
6.3 Length, width and squareness.....	10
7 Quality requirements	10
7.1 General.....	10
7.2 Methods of observation and measurement.....	11
7.2.1 Optical faults.....	11
7.2.2 Visual faults (spot faults, linear/extended faults), all types of basic alumino silicate glass.....	12
7.3 Acceptance levels	13
7.3.1 Optical faults.....	13
7.3.2 Visual faults (spot faults, linear/extended faults), all types of basic alumino silicate glass.....	13
7.4 Edge defects for final cut sizes.....	14
7.4.1 Entrant and emergent faults	14
7.4.2 Bevel	14
7.4.3 Limitations on edge defects.....	14
8 Designation.....	15
Annex A (informative) Complementary information related to REACH	16
Bibliography.....	17

European foreword

This document (EN 15681-1:2016) 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 July 2016, and conflicting national standards shall be withdrawn at the latest by July 2016.

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

This European Standard consists of the following parts:

- EN 15681-1 Glass in Building — Basic alumino silicate glass products — Part 1: Definitions and general physical and mechanical properties;
- EN 15681-2 Glass in Building — Basic alumino silicate glass products — Part 2: Evaluation of conformity / Product standard¹.

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 Standard under development.

1 Scope

This Part of this European Standard specifies and classifies basic alumino silicate glass products, indicates their chemical composition, their main physical and mechanical characteristics, their dimensional and their minimum quality requirements (in respect of optical and visual faults).

This European Standard applies to basic alumino silicate glasses supplied in stock sizes, supplied sizes or in cut sizes for final end use.

This European Standard does not apply to final cut sizes having a dimension less than 100 mm or a surface area less than 0,05 m².

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 410, *Glass in building - Determination of luminous and solar characteristics of glazing*

ISO 9385, *Glass and glass-ceramics — Knoop hardness test*

3 Terms and definitions

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

3.1
alumino silicate glass
silicate glass containing between 5,8 % to 16,2 % aluminium and with a chemical composition according to 4.1 of this standard

3.2
alumino silicate float glass
flat, transparent, clear or tinted alumino silicate glass having parallel and polished faces obtained by continuous casting and floatation on a metal bath

Note 1 to entry: In French called 'glace' and in German 'Floatglas'.

3.3
alumino silicate drawn sheet glass
flat, transparent or translucent, clear or tinted basic alumino silicate glass obtained by continuous drawing of a regular thickness and with the two surfaces fire polished

3.4
alumino silicate rolled glass
flat, transparent or translucent, clear or tinted basic alumino silicate glass obtained by rolling

3.5
length, H and width, B
defined with reference to the direction of draw of the glass ribbon as shown in Figure 1