

EHITUSKLAAS. KLAASPAKETID. OSA 5:
TOOTESTANDARD

Glass in building - Insulating glass units - Part 5:
Product standard

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 1279-5:2018 sisaldab Euroopa standardi EN 1279-5:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 1279-5:2018 consists of the English text of the European standard EN 1279-5:2018.
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 25.07.2018.	Date of Availability of the European standard is 25.07.2018.
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:
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:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Glass in building - Insulating glass units - Part 5: Product standard

Verre dans la construction - Vitrage isolant - Partie 5:
Norme de produit

Glas im Bauwesen - Mehrscheiben-Isolierglas - Teil 5:
Produktnorm

This European Standard was approved by CEN on 9 March 2018.

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, Serbia, 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: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword.....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	7
4 Requirements	9
4.1 Product description.....	9
4.2 Determination of the characteristic's performances.....	9
4.2.1 Characteristics of glass panes for use in insulating glass units.....	9
4.2.2 Determination of characteristics of insulating glass units	10
4.3 Characteristics other than listed in 4.2	17
5 Assessment and verification of constancy of performance – AVCP.....	17
5.1 General.....	17
5.2 Determination of the product type (see 5.1, 1)	17
5.2.1 General.....	17
5.2.2 Type testing of characteristic's performances	18
5.2.3 Test reports.....	18
5.2.4 Multiple lines/sites.....	19
5.3 Factory Production control (FPC)	19
5.3.1 General.....	19
5.3.2 Inspection of samples in accordance with a prescribed test plan (see 5.1 2a).....	19
5.4 Initial inspection of factory and of factory production control (5.1 2b)	20
5.5 Continuous surveillance and assessment of the factory production control (5.1 2c).....	21
5.6 Procedure for modifications	22
5.7 Pre-production products (e.g. prototypes).....	22
6 Marking and/or labelling.....	23
6.1 General.....	23
6.2 Product marking.....	23
Annex A (normative) Safety in use - Mechanical resistance: Resistance against wind, snow, permanent load and/or imposed loads of the glass unit.....	24
Annex B (normative) Effect of gas filling on thermal and sound insulation performances:.....	26
B.1 Determination of the value to be declared	26
B.2 Example with krypton gas filling.....	27
Annex C (informative) Installation of Insulating Glass Units	29
C.1 General.....	29
C.2 Appropriate supports	29
C.3 Installation and glazing conditions	29
C.3.1 General.....	29
C.3.2 Compatibility	30
C.3.3 Protection of the edge seal against ultraviolet radiation	30

C.3.4	Pressure limits on glass and prevention of frictional movements	30
C.3.5	Prevention of contact of glass with support.....	30
Annex D	(normative) Rules for the use of other party TT results.....	31
D.1	General	31
D.2	Manufacturer supplying the other party TT results	31
D.3	Manufacturer using the other party TT results	32
Annex E	(informative) Provisions for voluntary involvement of third party(ies)	33
E.1	General	33
E.2	Voluntary tasks for third parties	33
E.3	Marking and labelling	33
Annex ZA	(informative) Relationship of this European Standard with Regulation (EU)	
	No.305/2011	34
ZA.1	Scope and relevant characteristics	34
ZA.2	System of Assessment and Verification of Constancy of Performance (AVCP)	35
ZA.3	Assignment of AVCP tasks	35
Bibliography	39

European foreword

This document (EN 1279-5:2018) 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 2019 and conflicting national standards shall be withdrawn at the latest by April 2020.

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

This document supersedes EN 1279 5:2005+A2:2010.

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

For relationship with EU Regulation(s), see informative Annex ZA, which is an integral part of this document.

The main changes in comparison with the previous edition include:

- a) The standard has been revised to fulfil the requirements of the Regulation (EU) No 305/2011 (Construction Product Regulation), modified by Regulations (EU) No 157/2014, (EU) No 568/2014 and (EU) No 574/2014;
- b) Requirements for insulating glass units for use in bonded glazing systems are given;
NOTE “bonded glazing” is sometimes called “structural sealant glazing”.
- c) The solar factor, g , is listed within the spectrophotometric characteristics to be declared in the Declaration of Performances (DoP);
- d) The durability/conformity assessment is listed within the characteristics to be declared in the DoP;
- e) The mechanical resistance shall be given in the DoP by the characteristic bending strength of the glass components.

EN 1279, *Glass in Building - Insulating glass units*, consists of the following parts:

- *Part 1: Generalities, system description, rules for substitution, tolerances and visual quality;*
- *Part 2: Long term test method and requirements for moisture penetration;*
- *Part 3: Long term test method and requirements for gas leakage rate and for gas concentration tolerances;*
- *Part 4: Methods of test for the physical attributes of edge seal components and inserts;*
- *Part 5: Product standard;*
- *Part 6: Factory production control.*

This European Standard contains other aspects of importance for trade.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

This document is a preview generated by EVS

1 Scope

This document covers the product standard of insulating glass units (IGU) for use in buildings.

NOTE 1 Units for which the intended use is only artistic and therefore no essential characteristics are required are not subject to CE marking and are not part of this standard.

NOTE 2 For glass products with electrical wiring or connections for, e.g. alarm or heating purposes, other directives, e.g. Low Voltage Directive, may apply.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 356, *Glass in building - Security glazing - Testing and classification of resistance against manual attack*

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

EN 673, *Glass in building - Determination of thermal transmittance (U value) - Calculation method*

EN 674, *Glass in building - Determination of thermal transmittance (U value) - Guarded hot plate method*

EN 675, *Glass in building - Determination of thermal transmittance (U value) - Heat flow meter method*

EN 1063, *Glass in building - Security glazing - Testing and classification of resistance against bullet attack*

EN 1279-1:2018, *Glass in building - Insulating glass units - Part 1: Generalities, system description, rules for substitution, tolerances and visual quality*

EN 1279-2:2018, *Glass in building - Insulating glass units - Part 2: Long term test method and requirements for moisture penetration*

EN 1279-3:2018, *Glass in building - Insulating glass units - Part 3: Long term test method and requirements for gas leakage rate and for gas concentration tolerances*

EN 1279-4:2018, *Glass in building - Insulating glass units - Part 4: Methods of test for the physical attributes of edge seal components and inserts*

EN 1279-6:2018, *Glass in building - Insulating glass units - Part 6 Factory production control and periodic tests*

EN 12600, *Glass in building - Pendulum test - Impact test method and classification for flat glass*

EN 12758, *Glass in building - Glazing and airborne sound insulation - Product descriptions and determination of properties*

EN 12898, *Glass in building - Determination of the emissivity*

EN 13022-1:2014, *Glass in building - Structural sealant glazing - Part 1: Glass products for structural sealant glazing systems for supported and unsupported monolithic and multiple glazing*

EN 13501-1, *Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests*

EN 13501-2, *Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services*

EN 13501-5, *Fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests*

EN 13541, *Glass in building - Security glazing - Testing and classification of resistance against explosion pressure*

EN 14449:–¹⁾, *Glass in building - Laminated glass and laminated safety glass - Evaluation of conformity/Product standard*

EN 15434:2006+A1:2010, *Glass in building - Product standard for structural and/or ultra-violet resistant sealant (for use with structural sealant glazing and/or insulating glass units with exposed seals)*

EN 15998, *Glass in building - Safety in case of fire, fire resistance - Glass testing methodology for the purpose of classification*

EN 16612:–²⁾, *Glass in building - Determination of the lateral load resistance of glass panes by calculation*

EN ISO 52022-3, *Energy performance of buildings - Thermal, solar and daylight properties of building components and elements - Part 3: Detailed calculation method of the solar and daylight characteristics for solar protection devices combined with glazing (ISO 52022-3)*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16612:–¹⁾ and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

factory production control

FPC

documented, permanent and internal control of production in a factory, in accordance with this standard

Note 1 to entry: See also EN 1279-6:2018, Annex A.

3.2

product-type

set of representative performance levels or classes of a construction product, in relation to its essential characteristics, produced using a given combination of raw materials or other elements in a specific production process

1) Under preparation. Stage at the time of publication: prEN 14449:2017.

2) Under preparation. Stage at the time of publication: prEN 16612:2017.