

**Ehitusklaas. Lamineeritud klaas ja  
lamineeritud turvaklaas.  
Vastavushindamine/Tootestandard**

Glass in building - Laminated glass and laminated safety glass - Evaluation of conformity/Product standard

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14449:2005 sisaldab Euroopa standardi EN 14449:2005 +AC:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 22.06.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14449:2005 consists of the English text of the European standard EN 14449:2005 +AC:2005.</p> <p>This document is endorsed on 22.06.2005 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><b>Käsitlusala:</b> This European Standard covers the evaluation of conformity and the factory production control of laminated glass and laminated safety glass for use in buildings.</p>	<p><b>Scope:</b> This European Standard covers the evaluation of conformity and the factory production control of laminated glass and laminated safety glass for use in buildings.</p>
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**Võtmesõnad:** conformity tests, flame propagation, glass, inspection, laminated glass, laminated safety glass, marking, mechanical properties, physical properties, production control, properties, quality assurance, refractability, safety glass, surface spread of flame, terms

ICS 81.040.20

English version

## Glass in building - Laminated glass and laminated safety glass - Evaluation of conformity/Product standard

Verre dans la construction - Verre feuilleté et verre feuilleté  
de sécurité - Evaluation de la conformité/Norme de produit

Glas im Bauwesen - Verbundglas und Verbund-  
Sicherheitsglas - Konformitätsbewertung/Produktnorm

This European Standard was approved by CEN on 3 March 2005.

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.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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## Foreword

This European Standard (EN 14449:2005) 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 October 2005, and conflicting national standards shall be withdrawn at the latest by January 2007.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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

No existing European Standard is superseded.

This European Standard stands alone.

This European Standard contains other aspects of importance of trade.

This European Standard includes a Bibliography.

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.

## 1 Scope

This European Standard covers the evaluation of conformity and the factory production control of laminated glass and laminated safety glass for use in buildings.

NOTE 1 This also includes requirements subject to regulation.

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 referenced documents are indispensable for the application 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 572-1, *Glass in building - Basic soda lime silicate glass products - Part 1: Definitions and general physical and mechanical properties*

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

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

EN 1748-1-1, *Glass in building - Special basic products - Borosilicate glasses - Part 1-1: Definition and general physical and mechanical properties*

EN 1748-2-1, *Glass in building - Special basic products - Glass ceramics - Part 2-1: Definition and general physical and mechanical properties*

EN 1863-1, *Glass in building - Heat strengthened soda lime silicate glass - Part 1: Definition and description*

EN 12150-1, *Glass in building - Thermally toughened soda lime silicate safety glass - Part 1: Definition and description*

EN 12337-1, *Glass in building - Chemically strengthened soda lime silicate glass - Part 1: Definition and description*

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 13024-1, *Glass in building - Thermally toughened borosilicate safety glass - Part 1: Definition and description*

EN 13501-1, *Fire classification of construction products and building elements - Part 1: Classification using test 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*

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

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

EN 14178-1, *Glass in building – Basic alkaline earth silicate glass products - Part 1: Float glass*

prEN 14179-1, *Glass in building - Heat soaked thermally toughened soda lime silicate safety glass – Part 1: Definition and description*

prEN 14321-1, *Glass in building – Thermally toughened alkaline earth silicate safety glass - Part 1: Definition and description*

EN ISO 12543-1:1998, *Glass in building – Laminated glass and laminated safety glass - Part 1: Definitions and description of component parts (ISO 12543-1:1998)*

EN ISO 12543-2:1998, *Glass in building – Laminated glass and laminated safety glass - Part 2: Laminated safety glass (ISO 12543-2:1998)*

EN ISO 12543-3:1998, *Glass in building – Laminated glass and laminated safety glass - Part 3: Laminated glass (ISO 12543-3:1998)*

EN ISO 12543-4:1998, *Glass in building – Laminated glass and laminated safety glass - Part 4: Test methods for durability (ISO 12543-4:1998)*

EN ISO 12543-5:1998, *Glass in building – Laminated glass and laminated safety glass - Part 5: Dimensions and edge finishing (ISO 12543-5:1998)*

EN ISO 12543-6:1998, *Glass in building – Laminated glass and laminated safety glass - Part 6: Appearance (ISO 12543-6:1998)*

### **3 Terms and definitions**

For the purposes of this European Standard, the terms and definitions given in EN ISO 12543:1998 Parts 1, 2, 3, 4, 5 and 6 and the following apply.

#### **3.1 initial type testing**

determination of the performance of a product (characteristic, durability), on the basis of either actual tests or other procedures (such as conventional, standardised, tabulated or general accepted values, standardised or recognised calculation methods, test reports when made available, ...), in accordance with this European Standard that demonstrates compliance with this European Standard

#### **3.2 test report**

document that covers the results of tests undertaken on a representative sample of the product from production or on a prototype design of the product

#### **3.3 product description**

document that details the relevant parameters, e.g. process conditions, structure, etc., for defining a product that complies with the standard. It includes specific reference(s) to characteristics that are modified by the production process

#### **3.4 significant change**

variation in performance beyond the permitted tolerance for the characteristic