

**VÄLIRULOOD JA MARKIISID. TOIMIVUS- JA
OHUTUSNÕUDED**

**External blinds and awnings - Performance
requirements including safety**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13561:2015 sisaldab Euroopa standardi EN 13561:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 13561:2015 consists of the English text of the European standard EN 13561:2015.
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English Version

External blinds and awnings - Performance requirements including safety

Stores extérieurs - Exigences de performance, y compris la
sécurité

Markisen - Leistungs- und Sicherheitsanforderungen

This European Standard was approved by CEN on 15 February 2015.

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Foreword

This document (EN 13561:2015) has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters, building hardware and curtain walling”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2015 and conflicting national standards shall be withdrawn at the latest by February 2017.

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 supersedes EN 13561:2004+A1:2008.

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 and Annex ZB, which are integral parts of this document.

This European Standard is a part of a series of standards dealing with blinds and shutters for buildings as defined in EN 12216.

The major modifications to the previous edition are:

- the scope has been modified to integrate Pergola awnings;
- 4.1 “Resistance to wind loads” has been modified and has been aligned with the revised version of EN 1932 “Test methods”;
- 4.2 “Resistance of non retractable elements to pressure loads” has been added to integrate requirements on external blinds and awnings in the retracted position;
- 4.6 “Operating mechanism - Diagrams HPV (“Human Pull Value”)”, the use of the HPV diagram has been clarified;
- 4.11 “Additional thermal resistance ΔR ” has been clarified;
- 4.12 “Total solar energy transmittance g_{tot} ” has been added;
- 4.14 “Materials”, the part related to fabrics has been reviewed completely and EN ISO 105-B04 and EN 12280-2 have been integrated. Requirements for metals have been clarified;
- Clause 7 “Assessment and verification of constancy of performance - AVCP” has been aligned with the European template;
- Annex B “List of significant machine hazards” has been modified and EN ISO 12100 has been introduced;
- Annex C “Example of calculation for the wind resistance determination on fixed parts of external blinds in retracted position” has been added;
- Annex ZA has been modified to introduce a new mandated characteristic: the total solar energy transmittance g_{tot} and revised in accordance with requirements of the CPR.

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.

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Introduction

This document is a type C standard as stated in EN ISO 12100.

The machinery concerned, i.e. power operated products, and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

1 Scope

This European Standard specifies the performance requirements for blinds and awnings intended to be fitted externally to buildings and other construction works. It deals also with the significant hazards for assembly, transport, installation, operation and maintenance (see list of significant machine hazards in Annex B).

It applies to all external blinds and awnings whatever their design and nature of the materials used, as follows and defined in EN 12216:

- folding arm awning, trellis arm awning, pivot arm awning, slide arm awning, vertical roller blind, marquise, façade awning, skylight awning, conservatory awning, Pergola awning, Dutch awning, insect screen; brise-soleil.

This European Standard does not cover the wind resistance of non-retractable products, e.g. Dutch awnings and brise-soleil.

The structural part to which the Pergola awning is fixed is not covered.

The products covered by this European Standard may be operated manually, with or without compensating springs or by means of electric motors (power operated products). However, the durability and endurance of the autonomous supply for power operated external blinds and awnings not connected to the mains supply are not covered.

This European Standard deals also with all significant hazards, hazardous situations and events when external blinds and awnings are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Annex B).

This European Standard covers external blinds and awnings mounted externally. In case such products are installed internally, they should fulfil all relevant safety requirements defined in EN 13120.

The noise emission of power operated external blinds and awnings is not considered to be a relevant hazard according to the machinery health and safety requirements. Therefore this European Standard does not contain any specific requirements on noise health and safety objective.

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 1522, *Windows, doors, shutters and blinds - Bullet resistance - Requirements and classification*

EN 1523, *Windows, doors, shutters and blinds - Bullet resistance - Test method*

EN 1670, *Building hardware - Corrosion resistance - Requirements and test methods*

EN 1932, *External blinds and shutters - Resistance to wind loads - Method of testing and performance criteria*

EN 1933, *Exterior blinds - Resistance to load due to water accumulation - Test method*

EN 12045, *Shutters and blinds power operated - Safety in use - Measurement of the transmitted force*

EN 12194, *Shutters, external and internal blinds - Misuse - Test methods*

EN 12216, *Shutters, external blinds, internal blinds - Terminology, glossary and definitions*

EN 13125, *Shutters and blinds - Additional thermal resistance - Allocation of a class of air permeability to a product*

EN 13527, *Shutters and blinds - Measurement of operating force - Test methods*

EN 14201, *Blinds and shutters - Resistance to repeated operations (mechanical endurance) - Methods of testing*

EN 20105-A02, *Textiles - Tests for colour fastness - Part A02: Grey scale for assessing change in colour (ISO 105-A02:1993)*

EN 20811, *Textiles - Determination of resistance to water penetration - Hydrostatic pressure test*

EN 60335-1, *Household and similar electrical appliances - Safety - Part 1: General requirements (IEC 60335-1)*

EN 60335-2-97, *Household and similar electrical appliances - Safety - Part 2-97: Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment (IEC 60335-2-97)*

EN 61310-1, *Safety of machinery - Indication, marking and actuation - Part 1: Requirements for visual, acoustic and tactile signals (IEC 61310-1)*

EN ISO 105-B04, *Textiles - Tests for colour fastness - Part B04: Colour fastness to artificial weathering: Xenon arc fading lamp test (ISO 105-B04)*

EN ISO 139, *Textiles - Standard atmospheres for conditioning and testing (ISO 139)*

EN ISO 1421, *Rubber- or plastics-coated fabrics - Determination of tensile strength and elongation at break (ISO 1421)*

EN ISO 10077-1, *Thermal performance of windows, doors and shutters - Calculation of thermal transmittance - Part 1: General (ISO 10077-1)*

EN ISO 12100, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100)*

EN ISO 13934-1, *Textiles - Tensile properties of fabrics - Part 1: Determination of maximum force and elongation at maximum force using the strip method (ISO 13934-1)*

ISO 9227, *Corrosion tests in artificial atmospheres - Salt spray tests*

ISO 11228-3, *Ergonomics - Manual handling - Part 3: Handling of low loads at high frequency*

3 Terms and definitions

For the purposes of this document, the terms and definitions in EN ISO 12100 and EN 12216 and the following apply.

3.1

external blinds / awnings

product, where the curtain is made of a flexible material, installed to provide or modify characteristics such as thermal and visual properties of an existing glazed surface (e.g. window, door) to which it is applied

Note 1 to entry: If not specified otherwise, the term “external blind” used in this document refers to any type of external blinds or awnings included in the scope of this European Standard.