

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

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 1932:2013 sisaldab Euroopa standardi EN 1932:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 1932:2013 consists of the English text of the European standard EN 1932:2013.
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 19.06.2013.	Date of Availability of the European standard is 19.06.2013.
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Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 91.060.50

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English Version

## External blinds and shutters - Resistance to wind loads - Method of testing and performance criteria

Fermetures pour baies équipées de fenêtres et stores extérieurs - Résistance aux charges de vent - Méthodes d'essai et critères de performance

Abschlüsse und Markisen - Widerstand gegen Windlast - Prüfverfahren und Nachweiskriterien

This European Standard was approved by CEN on 14 December 2012.

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.

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## Foreword

This document (EN 1932:2013) 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 December 2013, and conflicting national standards shall be withdrawn at the latest by 2014-12-10.

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 1932:2001.

The main changes incorporated in this revision are:

- A complete editorial review of the document has been carried out.
- Pergola awnings have been added in accordance with the modification of the scope of EN 13561.
- The possibility to apply a uniformly distributed load with a mattress has been added for some products (e.g. Awnings with lateral guiderail with fabric running into the lateral rails without tension system).
- The test method for External Venetian Blinds has been changed: the bar test has been replaced by a test with a pneumatic device.

This document is part of a series of standards dealing with external blinds and shutters fitted to buildings as defined in EN 12216.

The tests defined in this standard conventionally reproduce the positive and negative pressures due to the wind applied to external blinds and shutters.

Under these conditions, these tests allow the verification that external blinds and shutters as a whole fulfil the requirements specified in EN 13561 and EN 13659, namely:

- no unacceptable visual defects appear;
- the suitability for use is maintained;
- the safety of users is maintained.

This European Standard is one of a package of inter-related European Standards with a common date of withdrawal (dow) fixed on December 2013:

- EN 1932, *External blinds and shutters — Resistance to wind loads — Method of testing and performance criteria*;
- EN 13330, *Shutters — Hard body impact and prevention of access — Test methods*;
- EN 13561, *External blinds and awnings — Performance requirements including safety*;
- EN 13659, *Shutters and external venetian blinds — Performance requirements including safety*.

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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## 1 Scope

The European Standard specifies the test methods to evaluate the wind resistance of external blinds and shutters to be fitted to buildings, in front of windows, doors or façades and delivered as a complete unit.

This European Standard applies to:

- shutters: roller shutter, external venetian blind, wing shutter, venetian shutter, concertina shutter, flat closing concertina shutter and sliding panel shutter (including those with projection systems);
- external blinds: folding arm awning, trellis arm awning, pivot arm awning, marquisolette, vertical awning, façade awning, conservatory awning, roof window awning, Pergola awning and insect screen

whatever the nature of the constituent materials, under normal operating conditions and installed in compliance with the manufacturer's installations instructions.

This European Standard does not cover non retractable shutters, external blinds and awnings such as Dutch awnings and brise-soleil as well as the structural part of Pergolas.

NOTE The wind resistance of such products can be evaluated by calculations.

## 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 12216, *Shutters, external blinds, internal blinds — Terminology, glossary and definitions*

EN 13561, *External blinds and awnings — Performance requirements including safety*

EN 13659, *Shutters and external venetian blinds — Performance requirements including safety*

EN 14500, *Blinds and shutters — Thermal and visual comfort — Test and calculation methods*

EN ISO 2439, *Flexible cellular polymeric materials — Determination of hardness (indentation technique) (ISO 2439)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12216, EN 13561 and EN 13659 and the following apply.

**3.1**  
**test pressure**  
 $p$   
pressure exerted on the external or internal face of the test sample which represents the differential pressure (difference in pressure between the two faces) exerted by the wind on the external blind/awning or the shutter

**3.2**  
**nominal pressure**  
 $p_N$   
test pressure under which the test sample does not sustain deformation or deterioration detrimental to its correct operation

**3.3**  
**safety pressure**  
 $p_s$   
test pressure under which no deterioration which may be dangerous for the persons is observed