

Blinds and shutters - Thermal and visual comfort - Test ad calculation methods

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ad calculation methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14500:2008 sisaldab Euroopa standardi EN 14500:2008 ingliskeelset teksti.

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English Version

Blinds and shutters - Thermal and visual comfort - Test and calculation methods

Fermetures et stores - Confort thermique et lumineux -
Méthodes d'essai et de calcul

Abschlüsse - Thermischer und visueller Komfort - Prüf- und
Berechnungsverfahren

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Foreword

This document (EN 14500:2008) 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of an identical text or by endorsement, at the latest by November 2008, and conflicting national standards shall be withdrawn at the latest by November 2008.

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.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

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

This European Standard is mainly based on the European work performed in CEN/TC 89 "Thermal performance of buildings and building components" relating to solar and light transmittance of solar protection devices combined with glazing, and the document CIE 130.

1 Scope

This European Standard defines test and calculation methods for the determination of the reflection and transmission characteristics to be used to determine the thermal and visual comfort performance classes of external blinds, internal blinds and shutters, as specified in EN 14501.

This European Standard also specifies the method to determine opacity characteristics of dim-out/black-out external blinds, internal blinds and shutters, as specified in EN 14501.

This European Standard applies to the whole range of shutters, awnings and blinds defined in EN 12216, described as solar protection devices in this European Standard. Some of the characteristics (e.g. g_{tot}) are not applicable when products are not parallel to the glazing (e.g. folding-arm awnings).

NOTE Informative Annex D presents an approach for the determination of characteristics in case of projectable products.

Products using fluorescent or retroreflecting materials are outside the scope of this European Standard.

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.

CIE 130:1998, *Practical methods for the measurement of reflectance and transmittance*

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

EN 12216:2002, *Shutters, external blinds, internal blinds – Terminology, glossary and definitions*

EN 13363-1, *Solar protection devices combined with glazing – Calculation of solar and light transmittance – Part 1: Simplified method*

EN 13363-2:2005, *Solar protection devices combined with glazing – Calculation of total solar energy transmittance and light transmittance – Part 2: Detailed calculation method*

EN 14501:2005, *Blinds and Shutters – Thermal and visual comfort – Performance characteristics and classification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12216:2002, EN 14501:2005 and the following apply.

3.1 Processes

3.1.1 reflection

process by which radiation is returned by a surface or medium, without change of frequency of its monochromatic components