

Blinds and shutters - Thermal and visual comfort - Performance characteristics and classification

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14501:2005 sisaldab Euroopa standardi EN 14501:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 29.09.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14501:2005 consists of the English text of the European standard EN 14501:2005.</p> <p>This document is endorsed on 29.09.2005 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>Käsitlusala:</p> <p>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.</p>	<p>Scope:</p> <p>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.</p>
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Võtmesõnad: climatic protection, definitions, doors, endings, evaluations, management, performance, properties, protection devices, sunshading, testing, thermal protection, thermal stress, transparency, weather protection systems, windows, visual, visual protection

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English version

Blinds and shutters - Thermal and visual comfort - Performance characteristics and classification

Fermetures et stores - Confort thermique et lumineux -
Caractérisation des performances et classification

Abschlüsse - Thermischer und visueller Komfort -
Leistungsanforderungen und Klassifizierung

This European Standard was approved by CEN on 27 June 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.



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Contents

	page
Foreword.....	3
Introduction	4
1 Scope	4
2 Normative references	5
3 Terms, definitions and symbols.....	5
4 Notations used.....	7
4.1 General.....	7
4.2 Visual or solar properties	7
4.3 Geometry of the radiation	7
4.4 Optical factors.....	8
5 Thermal comfort.....	8
5.1 General.....	8
5.2 Control of solar gains – Total solar energy transmittance g_{tot}	9
5.3 Secondary heat gains – Secondary heat transfer factor $q_{i, tot}$	11
5.4 Protection from direct transmission – Normal/nominal solar transmittance $\tau_{e, n-n}$	11
6 Visual comfort.....	12
6.1 General.....	12
6.2 Opacity control.....	14
6.3 Glare control.....	14
6.4 Night privacy	16
6.5 Visual contact with the outside	16
6.6 Daylight utilisation.....	17
6.7 Rendering of colours.....	18
Annex A (normative) Reference glazings.....	19
A.1 General.....	19
A.2 Glazing A	19
A.3 Glazing B	19
A.4 Glazing C	20
A.5 Glazing D	21
Annex B (informative) The meaning of the secondary internal heat transfer factor $q_{i, tot}$	22
Annex C (informative) Example of performance presentation	23
C.1 Thermal comfort.....	23
C.2 Visual comfort.....	24
Bibliography.....	25

Foreword

This European Standard (EN 14501:2005) 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 February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

No existing European Standard is superseded.

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.

Introduction

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

The methods of characterisation are related to performance requirements required as a complement to intrinsic performances (specific requirements) that internal blinds, external blinds or shutters shall fulfil as specified in EN 13120, EN 13561 and EN 13659.

The present European Standard is mainly based on the European work performed in TC 89 relating to solar and light transmittance of solar protection devices combined with glazing and the Technical Report CIE 130.

1 Scope

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.

It states the properties that shall be taken into account when comparing products.

It also specifies the corresponding parameters and classifications to quantify the following properties:

- for the thermal comfort:
 - the solar factor (total solar energy transmittance);
 - the secondary heat transfer factor;
 - the direct solar transmittance;
- for the visual comfort:
 - the opacity control;
 - the night privacy;
 - the visual contact with the outside;
 - the glare control;
 - the daylight utilisation;
 - the rendering of colours.

NOTE For other purposes, more detailed methods using different parameters can be used.

Some of the characteristics (e.g. g_{tot}) are not applicable when products are not parallel to the glazing (e.g. folding-arm awnings).

This European Standard is not applicable to the products using fluorescent materials.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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*

prEN 14500¹, *Blinds and shutters — Thermal and visual comfort — Test methods*

3 Terms, definitions and symbols

For the purposes of this European Standard, the terms and definitions given in EN 12216:2002 and the following apply.

3.1

transmittance τ

ratio of the transmitted flux to the incident flux (see Figure 1)

NOTE A more detailed definition is given in prEN 14500.

3.2

reflectance ρ

ratio of the reflected flux to the incident flux (see Figure 1)

NOTE A more detailed definition is given in prEN 14500.

3.3

absorptance α

ratio of the absorbed flux to the incident flux (see Figure 1)

¹ To be published.