Shutters - Acoustic insulation relative to airborne sound - Expression of performance

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 14759:2005 sisaldab Euroopa standardi EN 14759:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 30.05.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 14759:2005 consists of the English text of the European standard EN 14759:2005. This document is endorsed on 30.05.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: The current standard applies to manufacturers of windows who wish to take advantage of additional acoustical performances brought by built-in shutter with window delivered as such on the market or brought by the addition of a shutter delivered separately (built-in shutter installed in a prefabricated box or built-on shutter).	**Scope:** The current standard applies to manufacturers of windows who wish to take advantage of additional acoustical performances brought by built-in shutter with window delivered as such on the market or brought by the addition of a shutter delivered separately (built-in shutter installed in a prefabricated box or built-on shutter).

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English version

Shutters - Acoustic insulation relative to airborne sound - Expression of performance

Fermetures - Isolation acoustique vis à vis des bruits aériens - Présentation de la performance

Abschlüsse außen - Luftschalldämmung - Angabe der Leistungen

This European Standard was approved by CEN on 28 February 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.

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Foreword

This document (EN 14759:2005) 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 October 2005, and conflicting national standards shall be withdrawn at the latest by October 2005.

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

This European Standard specifies a method to define the sound reduction index of external shutters fitted to a window or a French window as a specific performance in complement of the intrinsic performances of EN 13659.

The specifications for size, boundary and mounting conditions related to laboratory tests are described in EN ISO 140-3.

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

The current standard applies to manufacturers of windows who wish to take advantage of additional acoustical performances brought by built-in shutter with window delivered as such on the market or brought by the addition of a shutter delivered separately (built-in shutter installed in a prefabricated box or built-on shutter).

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 12216:2002*, Shutters, external blinds, internal blinds — Terminology, glossary and definitions.*

EN ISO 717-1, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 717-1:1996).*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12216:2002 apply together with the following:

distance window / shutter, d
smallest distance between the internal face of the curtain and the external face of the glazing

4 Acoustical performances of shutters

4.1 Assessment of performances

The acoustical performance of shutters, in decibels, is specified by $\mathbf{R_w}$, the weighted sound reduction index of airborne sound, with the spectrum adaptation terms **C** and $\mathbf{C_{tr}}$, referring to A-weighted pink noise and A-weighted urban traffic noise respectively, according to the procedure of evaluation specified in EN ISO 717-1 (using measurements in third octave bands).

$$\mathbf{R_w\ (C;C_{tr})}$$

NOTE 1 The additional acoustical performance of the shutter depends on the acoustical performance of the window fitted, on the distance d and of the quality of the installation.

NOTE 2 The influence of the shutter on the sound insulation depends on the construction details. A shutter does not necessarily improve the sound insulation determined according to EN ISO 717-1, and there might even be a risk of decrease of sound insulation in some cases.

The acoustic performance also depends on the type of mounting of the shutter or the built-in shutter with window in the opening. The following six types of mounting are defined:

— For a built-in shutter with window (see Figure 1)

Type 1: The box is behind the lintel

Type 2: The box is inside the opening

— For a built-in shutter (see Figure 2)