

# LIIKLUSMÜRA TÕKKED. SPETSIFIKATSIOONID

Road traffic noise reducing devices - Specifications

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 14388:2015 sisaldab Euroopa standardi EN 14388:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 14388:2015 consists of the English text of the European standard EN 14388:2015.
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 09.09.2015.	Date of Availability of the European standard is 09.09.2015.
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English Version

## Road traffic noise reducing devices - Specifications

Dispositifs de réduction du bruit du trafic routier -  
Spécifications

Lärmschutzvorrichtungen an Straßen - Vorschriften

This European Standard was approved by CEN on 12 December 2014.

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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 14388:2015) has been prepared by Technical Committee CEN/TC 226 “Road equipment”, 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of an identical text or by endorsement, at the latest by March 2016 and conflicting national standards shall be withdrawn at the latest by June 2017.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 14388:2005.

The main changes compared to the previous edition are:

- Two standards EN 1793-2 and EN 1793-6 are now specified for the measurement of airborne sound insulation, each with a specific field of application.
- Revision of Annex ZA according to Regulation EU 305/2011.

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 the EU Construction Products Regulation.

For relationship with the EU Construction Products Regulation, see informative Annex ZA, which is an integral part of this document.

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.

## 1 Scope

This European Standard specifies requirements for the following road traffic noise reducing devices (as defined in 3.1):

- noise barriers (as defined in 3.2);
- claddings (as defined in 3.5);
- road covers (as defined in 3.6); and
- added devices (as defined in 3.7).

These devices may include both acoustic and structural elements, where:

- an acoustic element is an element whose primary function is to provide a noise reducing device with sound insulation, diffraction and/or sound absorption, it is a part of noise reducing device to be used along roads, and
- a structural element is an element whose primary function is to support or hold in place acoustic elements, it is a part of noise reducing device to be used along roads. Depending upon the design of the noise reducing device, structural elements may potentially be tested separately from acoustic elements.

They may be made of different materials for which specific standards are to be applied in accordance with the specifications prescribed hereafter. Some of the materials may contain dangerous substances, the reason why all the materials are declared.

This European Standard identifies the relevant characteristics of road traffic noise reducing devices, the corresponding methods of evaluation and specifies the provisions on evaluation of conformity and marking.

This European Standard covers acoustic, non-acoustic and long term performance, but not aspects such as resistance to vandalism or requirements of visual appearance.

This European Standard does not cover road surfaces or the airborne sound insulation of houses.

## 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 1317-2, *Road restraint systems — Part 2: Performance classes, impact test acceptance criteria and test methods for safety barriers including vehicle parapets*

EN 1793-1, *Road traffic noise reducing devices — Test method for determining the acoustic performance — Part 1: Intrinsic characteristics of sound absorption*

EN 1793-2, *Road traffic noise reducing devices — Test method for determining the acoustic performance — Part 2: Intrinsic characteristics of airborne sound insulation under diffuse sound field conditions*

CEN/TS 1793-4, *Road traffic noise reducing devices — Test method for determining the acoustic performance — Part 4: Intrinsic characteristics — In situ values of sound diffraction*

EN 1793-6, *Road traffic noise reducing devices — Test method for determining the acoustic performance — Part 6: Intrinsic characteristics — In situ values of airborne sound insulation under direct sound field conditions*

EN 1794-1:2011, *Road traffic noise reducing devices — Non-acoustic performance — Part 1: Mechanical performance and stability requirements*

EN 1794-2:2011, *Road traffic noise reducing devices — Non-acoustic performance — Part 2: General safety and environmental requirements*

EN 14389-1, *Road traffic noise reducing devices — Procedures for assessing long term performance — Part 1: Acoustical characteristics*

EN 14389-2, *Road traffic noise reducing devices — Procedures for assessing long term performance — Part 2: Non-acoustical characteristics*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### **noise reducing device (NRD)**

device designed to reduce the propagation of traffic noise away from the road environment

Note 1 to entry: This may be a noise barrier, cladding, a road cover or an added device. These devices may include both acoustic and structural elements.

#### 3.2

##### **noise barrier**

noise reducing device which obstructs the direct transmission of airborne sound emanating from road traffic

#### 3.3

##### **acoustic element**

element whose primary function is to provide the acoustic performance of the device

#### 3.4

##### **structural element**

element whose primary function is to support or hold in place acoustic elements

#### 3.5

##### **cladding**

noise-reducing device which is attached to a wall or other structure and reduces the amount of sound reflected

#### 3.6

##### **cover**

noise-reducing device which either spans or overhangs the highway

#### 3.7

##### **added device**

added component that influences the acoustic performance of the original noise-reducing device (acting primarily on the diffracted energy)