Raudteealased rakendused. Akustika. Raudteeveeremi tekitatud müra mõõtmine (ISO 3095:2005)

Railway applications - Acoustics - Measurement of noise emitted by railbound vehicles (ISO 3095:2005)



# **EESTI STANDARDI EESSÕNA**

# **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 3095:2007 sisaldab Euroopa standardi EN ISO 3095:2005 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 25.10.2005 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 15.08.2005.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 3095:2007 consists of the English text of the European standard EN ISO 3095:2005.

This standard is ratified with the order of Estonian Centre for Standardisation dated 25.10.2005 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 15.08.2005.

The standard is available from Estonian standardisation organisation.

ICS 17.140.30, 45.060.01

Võtmesõnad: akustika, müra (heli), raudteeveerem, välismüra

# Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

# EUROPEAN STANDARD

# **EN ISO 3095**

# NORME EUROPÉENNE EUROPÄISCHE NORM

August 2005

ICS 17.140.30; 45.060.01

# **English Version**

# Railway applications - Acoustics - Measurement of noise emitted by railbound vehicles (ISO 3095:2005)

Applications ferroviaires - Acoustique - Mesurage du bruit émis par les véhicules circulant sur rails (ISO/FDIS 3095:2005) Bahnanwendungen - Akustik - Messung der Geräuschemission von spurgebundenen Fahrzeugen (ISO 3095:2005)

This European Standard was approved by CEN on 19 May 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.



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

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# **Foreword**

This European Standard (EN ISO 3095:2005) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 43 "Acoustics".

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.

This document has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 96/48.

For relationship with EU Directive(s), 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, Cyprus, Czech Republic, y, Coland, I 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

This European Standard specifies the conditions for obtaining reproducible and comparable measurement results of levels and spectra of noise emitted by all kinds of vehicles operating on rails or other types of fixed track, hereinafter conventionally called "train", except for track maintenance vehicles in operation.

This standard is applicable for:

- type testing;
- periodic monitoring testing.

The results may be used, for example:

- to characterise the noise emitted by these trains;
- to compare the noise emission of various vehicles on a particular track section;
- to collect basic source data for trains.

The test procedures specified in this European Standard are of engineering grade (grade 2, with a precision of ± 2 dB), that is the preferred one for noise declaration purposes, as defined in EN ISO 12001.

The procedures specified for accelerating and decelerating tests are of survey grade.

NOTE 1 Although this standard is for characterising noise emission for vehicles, the wheel-rail rolling noise often contains a significant and sometimes dominant noise contribution from the track.

NOTE 2 This Standard aims to specify the conditions for obtaining reproducible and comparable measurement results of noise emitted by railbound vehicles and the method described may also be used to monitor the noise emissions in ordinary traffic. In the latter case it is not necessary that track and vehicle conditions fulfil the requirements described in the standard. Therefore the results of such tests are only representative of a "particular" situation.

### 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 60942, Electroacoustics — Sound calibrators (IEC 60942:2003)

EN 61260, Electroacoustics — Octave-band and fractional-octave-band filters (IEC 61260:1995)

EN 61672-1, Electroacoustics — Sound level meters — Part 1: Specifications (IEC 61672-1:2002)

EN 61672-2, Electroacoustics — Sound level meters — Part 2: Pattern evaluation tests (IEC 61672-2:2003)

EN ISO 266, Acoustics — Preferred frequencies (ISO 266:1997)

# 3 Terms and definitions

NOTE Definitions from 3.7 to 3.14 apply to values measured either as a frequency spectrum or in a particular frequency band of centre f (expressed in Hz).