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Railway applications - Front windscreens for train cabs 



## EESTI STANDARDI EESSÕNA

### NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15152:2007 sisaldab Euroopa standardi EN 15152:2007 ingliskeelset teksti. Käesolev dokument on jõustatud 30.10.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti	This Estonian standard EVS-EN 15152:2007 consists of the English text of the European standard EN 15152:2007. This document is endorsed on 30.10.2007 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian
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Käsitlusala: This European Standard specifies the functional requirements for cab windscreens of high speed trains including testing and conformity assessment. The same requirements can be applied to the windscreens of other types of rolling stock if some of the performance criteria are adjusted to suit the application. Such changes should be based on national standards or infrastructure controller's regulations where they exist.	Scope: This European Standard specifies the functional requirements for cab windscreens of high speed trains including testing and conformity assessment. The same requirements can be applied to the windscreens of other types of rolling stock if some of the performance criteria are adjusted to suit the application. Such changes should be based on national standards or infrastructure controller's regulations where they exist.
ICS 45.060.10 Võtmesõnad:	
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# **EUROPEAN STANDARD** NORME EUROPÉENNE **EUROPÄISCHE NORM**

# EN 15152

August 2007

ICS 45.060.10

**English Version** 

## Railway applications - Front windscreens for train cabs

Applications ferroviaires - Vitres frontales des cabines des trains

Bahnanwendungen - Frontscheiben von Führerräumen

This European Standard was approved by CEN on 13 July 2007.

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 Management Centre 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 CEN Management Centre has the same status as the official versions.

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

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# Contents

### Page

ord	3
Scope	4
Normative references	4
Terms and definitions	4
Functional requirements	6
External visibility requirements	15
Test methods	16
A (normative) Diagram of projectile	26
B (informative) Summary of testing requirements	27
C (informative) Alternative method for testing resistance to Ultra Violet radiation General Test method Interpretation of results	28 28 28 28
ZA (informative) Relationship between this European Standard and the Essential Requirements of Directive 96/48/EC, as amended by Directive 2004/50/EC	29
graphy	31
	125
	Scope

## Foreword

This document (EN 15152:2007) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2008 and conflicting national standards shall be withdrawn at the latest by February 2008.

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 EU Directives 96/48 as modified by EU Directive 2004/50.

For relationship with EU Directive 96/48, 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, 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 United Kingdom.

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#### 1 Scope

This European Standard specifies the functional requirements for cab windscreens of high speed trains including testing and conformity assessment. The same requirements can be applied to the windscreens of other types of rolling stock if some of the performance criteria are adjusted to suit the application. Such changes should be based on national standards or infrastructure controller's regulations where they exist.

This European Standard does not specify all interfaces between the windscreen and the vehicle.

This European Standard does not apply to the renewal of windscreens of high speed rolling stock already in operation.

#### 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 2155-9, Aerospace series — Test methods for transparent materials for aircraft glazing — Part 9: Determination of haze

EN 50125-1, Railway applications — Environmental conditions for equipment — Part 1: Equipment on board rolling stock

EN ISO 4892 (all parts), Plastics — Methods of exposure to laboratory light sources

ISO 3537, Road vehicles — Safety glazing materials — Mechanical tests

ISO 3538:1997, Road vehicles — Safety glazing materials — Test methods for optical properties

ISO 6362-2:1990, Wrought aluminium and aluminium alloy extruded rods/bars, tubes and profiles — Part 2: Mechanical properties

CIE 15:2004, Colorimetry<sup>1)</sup>

CIE 38:1977, Radiometric and photometric characteristics of materials and their measurement<sup>1)</sup>

CIE S 004:2001, Colours of light signals<sup>1)</sup>

#### Terms and definitions 3

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

#### 3.1

### high speed train

train which is designed to operate at speeds equal to or greater than 190 km/h

NOTE This includes Class 1 and Class 2 high speed trains as defined in the HS TSI RS.

<sup>1)</sup> To be purchased from: International Commission of Illumination, CIE Central Bureau, Kegelgasse 27, A-1030 Wien.