

**Railway applications - Braking - Mass transit brake systems - Part 1:  
Performance requirements**

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**EESTI STANDARDI EESSÖNA****NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13452-1:2003 sisaldb Euroopa standardi EN 13452-1:2003 ingliskeelset teksti.	This Estonian standard EVS-EN 13452-1:2003 consists of the English text of the European standard EN 13452-1:2003.
Käesolev dokument on jõustatud 16.05.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 16.05.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

<b>Käsitlusala:</b> This European Standard specifies minimum and maximum limiting requirements for braking systems and performance. The Transport Authority defines the particular parameters where required in this European Standard and specifies any additional braking requirements to the vehicle builder/braking system supplier	<b>Scope:</b> This European Standard specifies minimum and maximum limiting requirements for braking systems and performance. The Transport Authority defines the particular parameters where required in this European Standard and specifies any additional braking requirements to the vehicle builder/braking system supplier
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**Railway applications - Braking - Mass transit brake systems -  
Part 1: Performance requirements**

Applications ferroviaires - Freinage - Systèmes de freinage  
des transports publics et suburbains - Partie 1: Exigences  
de performances

Bahnanwendungen - Bremsen - Bremssysteme des  
öffentlichen Nahverkehrs - Teil 1: Anforderungen an das  
Leistungsvermögen

This European Standard was approved by CEN on 27 December 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

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## Foreword

This document (EN 13452-1:2003) has been prepared by Technical Committee CEN/TC 256, "Railway applications", the secretariat of which is held by DIN.

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 September 2003, and conflicting national standards shall be withdrawn at the latest by September 2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

CEN/TC 256/SC3/WG 23 "Braking/Urban traffic" has been assisted with the preparation of this European Standard by CEN/TC 256/SC3/ WG 25 "Braking/Terminology, calculations and acceptance procedures".

This series EN 13452 *Railway applications – Braking – Mass transit brake systems* consists of two parts:

- Part 1: Performance requirements
- Part 2: Methods of test.

With regard to clause 9, which concerns Commuter/Regional trains, it should be noted that there might be borderline cases which can also come under the scope of CEN/TC 256/SC3/WG 22, "Braking Operation - Mainline Trains".

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom.

## **Introduction**

At this time, no European rules/regulations exist giving requirements and performances for braking of guided vehicles for urban transport systems. There are some national rules which cover certain types of rolling stock.

With regard to the Europe-wide competition required now, this European Standard will allow all prospective bidders to propose or offer rolling stock meeting specified minimum requirements for braking performances.

There is an equivalent European Standard (prEN 14198) covering the braking requirements for Main Line (Inter City) Trains. For any trains whose service operation could be considered to be either Main Line or (long distance) Commuter or Regional, the Transport Authority should define whether the brake performance is to be in accordance with the Main Line or the Commuter/Regional Section of this European Standard.

## 1 Scope

This European Standard specifies minimum and maximum limiting requirements for braking systems and performance. The Transport Authority defines the particular parameters where required in this European Standard and specifies any additional braking requirements to the vehicle builder/braking system supplier.

This European Standard specifies requirements and performances for the braking of vehicles for urban transport systems, running on steel or rubber tyred wheels and guided by steel rails or other equivalent means.

This European Standard applies to vehicles operating on:

- tramways;
- light railways;
- metros on steel wheels;
- metros on rubber tyred wheels;
- Commuter/Regional railways;

and is applicable to:

- all newly designed vehicles;
- all major refurbishments, if these include either redesign or extensive modifications to the brake system;
- any new builds of existing designs of vehicles. For this type of vehicle, the Transport Authority may specify performance values different from those defined in this European Standard.

This European Standard does not apply to special transport systems, e.g. suspended monorail, rack and pinion lines, isolated operations such as scenic railways, special duty vehicles, etc.

Transport Authorities shall ensure that specifications include this European Standard as part of the brake system requirements. Suppliers shall identify, at the time of tendering, any non-compliances against this European Standard.

Compliance with the functional and performance requirements defined in this European Standard is verified by testing in accordance with EN 13452-2.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 13452-2 *Railway applications - Braking - Mass transit brake systems - Part 2: Methods of test.*