

**Teepiirdesüsteemid. Osa 2: Põrkpiirete
ekspluatatsiooniomaduste klassid,
põrkekatse läbimistingimused ja
katsemeetodid**

Road restraint systems - Part 2: Performance
classes, impact test acceptance criteria and test
methods for safety barriers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1317-2:1999 sisaldab Euroopa standardi EN 1317-2:1998 ingliskeelset teksti. Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1317-2:1999 consists of the English text of the European standard EN 1317-2:1998. This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: Käesolev Euroopa standard määrab kindlaks põrkpiirete, kaasa arvatud sõiduki kaitseraua pörkeomadustele esitatavad nõuded. Standard määrab eri kaitseastmete ekspluatatsiooniomaduste klassid, pörketesti läbimistingimused ja testimismeetodid. Käesoleva standardi sätted kehtivad selliste süsteemide kohta, millel kaitsmine on ainus funktsioon. Need sätted kehtivad ka süsteemide kohta, millel kaitsefunktsioon on süsteemi lisafunktsioon (näiteks mürabarjäärid ja signalisatsiooniseadmed).	Scope:
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Võtmesõnad: kaitserinnatised, kaitsevahendid, kasutusnõuded, kõnniteed, liigitused, löögikindlus, löögiteimid, teed, teedeohutus, testimine, vastavus tehnilistele tingimustele

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Descriptors: Road safety, restraint systems, impact performance, classification, testing.

English version

Road restraint systems

Part 2: Performance classes, impact test acceptance
criteria and test methods for safety barriers

Dispositifs de retenue routiers –
Partie 2: Classes de performance,
critères d'acceptation des essais de
choc et méthodes d'essai pour les
barrières de sécurité

Rückhaltesysteme an Straßen –
Teil 2: Leistungsklassen, Abnahme-
kriterien für Anprallprüfungen und
Prüfverfahren für Schutzeinrichtungen

This European Standard was approved by CEN on 1998-03-05.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 226 'Road equipment', the secretariat of which is held by AFNOR.

This European Standard consists of the following Parts under the general title : Road restraint systems.

- Part 1 : Terminology and general criteria for test methods ;
- Part 2 : Performance classes, impact test acceptance criteria and test methods for safety barriers ;
- Part 3 : Crash cushions - Performance classes, impact test acceptance criteria and test methods for crash cushions ;

The following Parts are not yet available but in course of preparation :

- Part 4 : Impact tests acceptance criteria and test methods for terminals and transitions of safety barriers ;
- Part 5 : Durability criteria and evaluation of conformity ;
- Part 6 : Pedestrian road restraint system.

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 1998, and conflicting national standards shall be withdrawn at the latest by October 1998.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

In order to improve safety the design of roads may require the installation of safety barriers which are intended to contain and redirect errant vehicles safely for the benefit of the occupants and other road users on certain sections of road and at particular locations.

In this standard, several levels of performance are given for the three main criteria relating to the restraint of a road vehicle :

- the containment level i.e. T1, T2, etc. ;
- the impact severity levels i.e. A and B ;
- the deformation as expressed by the working width i.e. W1, W2, etc.

The different performance levels of safety barriers will enable national and Local Authorities to specify the performance class of a safety barrier to be deployed. Factors to be taken into consideration include the class or type road, its location, geometrical layout, the existence of a vulnerable structure, potentially hazardous area or object adjacent to the road.

The description of a safety barrier system conforming into this Standard incorporates the relevant classes and performance levels of the product.

To ensure satisfactory product design it is imperative to consider the requirements of this standard and the references in clause 2, together with the requirement of EN 1317-1. Quality of manufacture, installation and durability all contribute to this fulfilment of the important safety criteria that have to be considered in the application of these systems.

This standard provides a common basis for vehicle impact test data collection and the collation of relevant European studies and research with a view to improving future specifications and reviewing of the measurement of impact severity.

1 Scope

This European Standard specifies requirements for the impact performance of safety barriers including vehicle parapets. It defines performance classes for different containment levels, acceptance criteria for impact tests and test methods.

The provisions of this standard apply to systems of which the containment function is the unique purpose of the system. These provisions apply also to systems of which the containment function is an additional purpose of such systems, for example noise barriers and signalling equipment.

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.

EN 1317-1 Road restraint systems - Part 1 : Terminology and general criteria for test methods

ISO 6487 Road vehicles - Measurement techniques in impact tests - Instrumentation

ISO 10 392 Road vehicles with two axles - Determination of centre of gravity

3 Performance classes

3.1 General

Safety barriers shall conform to the requirements of 3.2, 3.3 and 3.4 when tested in accordance with impact test criteria defined in table 1.

NOTE : These requirements include several levels of performance that permit selection of a containment system adapted to suit the traffic conditions and the geometrical characteristics of the road under consideration.

Vehicle specifications and deviations shall conform to EN 1317-1.

Table 1 : Vehicle impact test criteria

Test	Impact speed km/h	Impact angle degrees	Total vehicle mass kg	Type of vehicle
TB 11	100	20	900	Car
TB 21	80	8	1 300	Car
TB 22	80	15	1 300	Car
TB 31	80	20	1 500	Car
TB 32	110	20	1 500	Car
TB 41	70	8	10 000	Rigid HGV
TB 42	70	15	10 000	Rigid HGV
TB 51	70	20	13 000	Bus
TB 61	80	20	16 000	Rigid HGV
TB 71	65	20	30 000	Rigid HGV
TB 81	65	20	38 000	Articulated HGV