

BSI Standards Publication

Road restraint systems - Truck Mounted Attenuators - Performance classes, impact test acceptance criteria and test performance



National foreword

This Published Document is the UK implementation of CEN/TS 16786:2018.

The UK participation in its preparation was entrusted to Technical Committee B/509/1, Road restraint systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

BSI, as a member of CEN, is obliged to publish CEN/TS 16786:2018 as a Published Document. However, attention is drawn to the fact that during the development of this Technical Specification, the UK committee voted against its approval as a Technical Specification.

The main reason for the negative UK committee vote is concern about the inclusion of only 50, 80 and 100 km/h speed classes.

Within the UK road network, truck mounted attenuators are used for a wide variety of tasks on a large number of different roads. This also includes the high-speed road network, where traffic is permitted to travel at speeds up to and including 70 mph. This is equivalent to $113 \ \rm km/h$.

Current UK requirements for the testing of truck mounted attenuators (contained within TD 49/07, *Requirements for Lorry Mounted Crash Cushions*) are for it to be carried out at 110 km/h.

CEN/TS 16786:2018 only considers testing with vehicles impacting at up to 100 km/h, and hence there is a gap between these testing requirements and the speeds at which an errant vehicle may impact a truck mounted attenuator on the UK road network. This is considered to represent a safety risk for UK road users.

Other reasons for the negative UK committee vote are that CEN/TS 16786:2018 does not require testing laboratories to be accredited and that deformation of the impacting vehicle does not constitute one of the pass/fail criteria.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2018 Published by BSI Standards Limited 2018

ISBN 978 0 580 87333 1

ICS 43.080.10; 43.040.80

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 May 2018.

Amendments/corrigenda issued since publication

Date Text affected

TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

CEN/TS 16786

TECHNISCHE SPEZIFIKATION

April 2018

ICS 43.040.80; 43.080.10

English Version

Road restraint systems - Truck Mounted Attenuators - Performance classes, impact test acceptance criteria and test performance

Dispositifs de retenue routiers - Atténuateurs de choc montés sur camions - Classes de performance, critères d'acceptation des essais de choc et méthodes d'essai Rückhaltesysteme an Straßen -Transportfahrzeuggestützte mobile Anprallverzögerer (TMA) - Leistungsklassen, Abnahmekriterien für Anprallprüfungen und Prüfungsleistungen

This Technical Specification (CEN/TS) was approved by CEN on 13 November 2017 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents			Page
Euro	opean f	foreword	3
Introduction			4
1	Scon	Scope	
2	•	mative references	
	Terms and definitions		
3			
4	Abbı	reviations	6
5	Test parameters		7
	5.1	Test site	
	5.2	Test vehicles	
		5.2.1 Impacting vehicles	
		5.2.2 Mobile carrier	
		5.2.3 Location of the ATD	
	5.3 Test matrix		9
	5.4	Accuracies and limit deviations of impact speeds and approac	
		5.4.1 Vehicle impact speed	
		5.4.2 Vehicle approach angle	
		5.4.3 Combined limit deviation of speed and angle	11
6	Phot	tographic coverage	12
7	Info	rmation to be reported	
	7.1	General	
	7.2	General test information	
	7.3 Structural adequacy		
	7.4	Deformation of mobile carrier	
	7.5 Deformation of impacting vehicle		
	7.6 Trajectory of the whole system		
	7.7	Trajectory of impacting vehicle	
	7.8	Severity indices	15
8	Evaluation criteria		_
	8.1	General	
	8.2 Structural adequacy		
	8.3	Deformation of impacting vehicle and mobile carrier	
	8.4	Trajectory of impacting vehicle	
	8.5	Severity index	16
Bibl	iograph	hv	17