

Railway applications - Railway rolling stock cables having special fire performance - Test methods

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50305:2003 sisaldab Euroopa standardi EN 50305:2002 ingliskeelset teksti.	This Estonian standard EVS-EN 50305:2003 consists of the English text of the European standard EN 50305:2002.
Käesolev dokument on jõustatud 05.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 05.02.2003 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.

Käsitlusala: This standard specifies special test methods applicable to cables, and their constituent insulating and streathing materials, for use of railway rolling stock. Such cables are specified in the various parts of EN 50264 and EN 50306	Scope: This standard specifies special test methods applicable to cables, and their constituent insulating and streathing materials, for use of railway rolling stock. Such cables are specified in the various parts of EN 50264 and EN 50306
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Võtmesõnad: electrically-opera, explosive atmospheres, flammable a, flammable materials, ignition protection, inflammable solids, marking, mine gas, mining, protective measures, safety, specification (approval), specifications, surface mining, testing, underground excavations

English version

**Railway applications -
Railway rolling stock cables having special fire performance -
Test methods**

Applications ferroviaires -
Câbles pour matériel roulant ferroviaire
ayant des performances particulières
de comportement au feu -
Méthodes d'essais

Bahnanwendungen -
Kabel und Leitungen für Schienenfahrzeuge
mit verbessertem Verhalten im Brandfall -
Prüfverfahren

This European Standard was approved by CENELEC on 2002-07-02. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

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

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Foreword

This European Standard was prepared for the Technical Committee CENELEC TC 20, Electric cables by WG 12, Railway cables, on behalf of the Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways.

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The following dates were fixed:

- latest date by which the EN has to be implemented
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national standard or by endorsement (dop) 2003-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2008-07-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes B and E are normative and annexes A, C and D are informative.

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Introduction

The railway industry is generally concerned with the movement of people as well as goods. It is therefore essential that a high level of safety is achieved, even when failures occur which may involve fire, howsoever caused, affecting railway rolling stock.

Hence it is necessary to provide cables for use in railway environments which minimise the hazard to people when a fire may damage the cable, irrespective of whether the fire is caused by an external source or from within the electrical system.

European Standards EN 50264 and EN 50306 specify cables which, in the event of fire will limit risk to people and improve the safety on railways in general. They cover cables based on halogen free materials, for use in railway rolling stock.

EN 50264 covers a range of sheathed and unsheathed cables, with standard wall thickness of insulation, rated at up to 3,6/6 kV with conductor sizes 1,0 mm² up to 400 mm².

EN 50306 covers a range of sheathed and unsheathed cables with thin wall insulation, and restricted to a rating of 300 V to earth and a maximum conductor size of 2,5 mm².

This standard EN 50305, gives particular test methods applicable to the cables at present covered by EN 50264 and EN 50306.

1 Scope

This standard specifies special test methods applicable to cables, and their constituent insulating and sheathing materials, for use in railway rolling stock. Such cables are specified in the various parts of EN 50264 and EN 50306.

Other test methods required for railway rolling stock cables and their insulating and sheathing materials are listed in Annex A.

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 50264-1	Railway applications - Railway rolling stock cables having special fire performance - Standard wall -- Part 1: General requirements
EN 50266-2-4:2001	Common test methods for cables under fire conditions - Test for vertical flame spread of vertically-mounted bunched wires or cables -- Part 2-4: Procedures - Category C
EN 50267-1	Common test methods for cables under fire conditions -- Test on gases evolved during combustion of materials from cables -- Part 1: Apparatus
EN 50306-1	Railway applications - Railway rolling stock cables having special fire performance - Thin wall -- Part 1: General requirements
EN 60216-1	Electrical insulating materials - Properties of thermal endurance -- Part 1: Ageing procedures and evaluation of test results (IEC 60216-1)
EN 60811-1-1	Insulating and sheathing materials of electric cables - Common test methods -- Part 1-1: General application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties (IEC 60811-1-1)
EN 60811-1-2	Insulating and sheathing materials of electric cables - Common test methods -- Part 1-2: General application - Thermal ageing methods (IEC 60811-1-2)
EN 60811-1-3	Insulating and sheathing materials of electric cables - Common test methods -- Part 1-3: General application - Methods for determining the density - Water absorption tests - Shrinkage test (IEC 60811-1-3)
EN 60811-1-4	Insulating and sheathing materials of electric cables - Common test methods -- Part 1-4: General application - Test at low temperature (IEC 60811-1-4)
EN 60811-3-1	Insulating and sheathing materials of electric cables - Common test methods -- Part 3-1: Methods specific to PVC compounds - Pressure test at high temperature - Tests for resistance to cracking (IEC 60811-3-1)
ISO 6349	Gas analysis - Preparation of calibration gas mixtures - Permeation method
ISO 8458-2	Steel wire for mechanical springs -- Part 2: Cold-drawn carbon steel wire