

Railway applications - Railway rolling stock cables having special fire performance - Thin wall and standard wall - Guide to use

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 50355:2003 sisaldab Euroopa standardi EN 50355:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.12.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 50355:2003 consists of the English text of the European standard EN 50355:2003.</p> <p>This document is endorsed on 18.12.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard gives guidance in the safe use of rolling stock cables specified in EN 50264, EN 50306 and EN XXS (series). These cables should only be used for the wiring of railway rolling stock and within the limits given in the manner described</p>	<p>Scope: This European Standard gives guidance in the safe use of rolling stock cables specified in EN 50264, EN 50306 and EN XXS (series). These cables should only be used for the wiring of railway rolling stock and within the limits given in the manner described</p>
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Võtmesõnad: electric loco, electrically-operated, flame propagation, materials, mathematics, operating requirements, physical, protectors, railroad vehicles, sheaths, specifications, surface, testing, thermal stress, traffic vehicles, wall thicknesses, voltage measurement

English version

**Railway applications -
Railway rolling stock cables having special fire performance -
Thin wall and standard wall -
Guide to use**

Applications ferroviaires -
Câbles à comportement au feu spécifié
pour matériel roulant ferroviaire -
Isolation mince et d'épaisseur normale -
Guide d'emploi

Bahnanwendungen -
Kabel und Leitungen für
Schienenfahrzeuge mit verbessertem
Verhalten im Brandfall -
Reduzierte Isolierwanddicken
und Standard-Isolierwanddicken -
Leitfaden für die Verwendung

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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 Technical Committee CENELEC TC 20 "Electric cables" by Working Group 12 " Railway cables" as part of the overall programme of work in the Technical Committee CENELEC TC 9X "Electrical and electronic applications for railways".

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50355 on 2003-06-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-06-01

Annexes designated "informative" are given for information only.
In this standard, Annexes A and B 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 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.

The objects of this guide are

- to inform railway vehicle manufacturers, installers of cables and railway operators of the properties and limiting conditions of rolling stock cables in order to safeguard life and equipment,
- to avoid misuse of rolling stock cables.

The information is given as limiting values and illustrated by examples which cannot be exhaustive but nevertheless indicate ways by which safety (a tolerable level of risk) can be obtained.

It has been assumed in the preparation of this guide that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

This guide should be used in conjunction with:

EN 50264 Railway applications – Railway rolling stock cables having special fire performance – Standard wall

EN 50306 Railway applications – Railway rolling stock cables having special fire performance – Thin wall

EN 50343 Railway applications – Rolling stock – Rules for installation of cabling

1 Scope

This European Standard gives guidance in the safe use of rolling stock cables specified in EN 50264 and EN 50306.

NOTE EN 50355 will be extended in future to cover also EN 50382, which is currently under preparation.

These cables should only be used for the wiring of railway rolling stock and within the limits given in the manner described in this European Standard. All these cables are for fixed installation where there is no free movement of cable, except for stresses due to typical service.

This European Standard is to be applied in conjunction with the relevant product and installation standards. Stricter requirements than those given in this standard could be necessary; see in particular EN 50343.

This European Standard is not applicable to

- intercarriage jumpers,
- cables subject to continual flexing,
- pantograph cables,
- coaxial and fibre optic cables,
- wire wrap,
- cables rated at voltages greater than 3,6/6 kV,
- national types,
- applications other than the cabling of railway rolling stock.

Legal or statutory requirements do take precedence over the guidance given in this document.

In cases where no guidance exists or where it cannot be derived from general information, it is recommended that advice should be sought from the cable manufacturer.

2 Definitions

For the purposes of this European Standard the definitions given in EN 50264 and EN 50306 apply.

3 Requirements for safety

3.1 Fundamental requirements

3.1.1 Railway rolling stock cables are intended for the transmission and distribution of electricity in monitoring, control and power circuits. In the case of normal use they are to be regarded as safe. Safety of a cable means that the product does not present an unacceptable risk of danger to life or property whilst being used in its intended manner.

3.1.2 Unless otherwise stated in the appropriate part of EN 50264 and EN 50306, cables should not be used for any other purpose than the transmission and distribution of electricity in control, monitoring and power circuits.