

Steel wire ropes - Safety - Part 6: Stranded ropes for mine shafts

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12385-6:2004 sisaldab Euroopa standardi EN 12385-6:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.05.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12385-6:2004 consists of the English text of the European standard EN 12385-6:2004.</p> <p>This document is endorsed on 18.05.2004 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:</p> <p>This European Standard specifies the special material, manufacturing and testing requirements for stranded ropes (with round and/or shaped strands) and flat ropes for use as hoist ropes, stage ropes and balance ropes in mine shafts. It is used in conjunction with EN 12385-1 and EN 12385-2.</p>	<p>Scope:</p> <p>This European Standard specifies the special material, manufacturing and testing requirements for stranded ropes (with round and/or shaped strands) and flat ropes for use as hoist ropes, stage ropes and balance ropes in mine shafts. It is used in conjunction with EN 12385-1 and EN 12385-2.</p>
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ICS 77.140, 77.140.65

Võtmesõnad: production, rope construction, ropes, round steel ropes, safety, safety measures, safety requirements, shaft plants, specification (approval), specifications, steel wires, stranded ropes, tensile strength, testing, user information, weight per length, winding ropes

ICS 77.140; 77.140.65

English version

Steel wire ropes - Safety - Part 6: Stranded ropes for mine shafts

Câbles en acier - Sécurité - Partie 6: Câbles d'extraction à
torons pour puits de mines

Drahtseile aus Stahldraht - Sicherheit - Teil 6: Litzenseile
für Schachtförderanlagen des Bergbaus

This European Standard was approved by CEN on 3 November 2003.

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.

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 Central Secretariat has the same status as the official versions.

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



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Foreword

This document EN 12385-6:2004 has been prepared by Technical Committee CEN/TC 168 "Chains, ropes, slings, webbing and accessories - Safety", the secretariat of which is held by BSI.

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 August 2004, and conflicting national standards shall be withdrawn at the latest by August 2004.

The other Parts of this European Standard are:

- *Part 1: General requirements*
- *Part 2: Definitions, designation and classification*
- *Part 3: Information for use and maintenance*
- *Part 4: Stranded ropes for general lifting applications*
- *Part 5: Stranded ropes for lifts*
- *Part 7: Locked coil ropes for mine shafts*
- *Part 8: Stranded hauling and carrying-hauling ropes for cableway installations designed to carry persons*
- *Part 9: Locked coil carrying ropes for cableway installations designed to carry persons*
- *Part 10: Spiral ropes for general structural applications*

Part 1 provides the general requirements for Parts 4 to 10.

Annexes A, B and C are normative. Annexes D and E are informative.

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

Introduction

During the preparation of this standard, it was assumed that negotiations would take place between the purchaser and the manufacturer concerning the intended purpose of the rope.

Customers, purchasers and users should recognize that ropes for mine shafts are, more often than not, specially designed by the rope manufacturer to meet particular hoisting machinery conditions, and particular attention should be given to the selection of the correct dimension(s) of rope and associated tolerance.

Although tables with factors for the calculation of breaking forces, nominal rope length masses and outer wire diameters for a number of the more common classes of ropes and tables with physical properties of flat ropes are provided, this part of the standard is not limited to those given, providing all the other requirements are met.

1 Scope

This European Standard specifies the special material, manufacturing and testing requirements for stranded ropes (with round and/or shaped strands) and flat ropes for use as hoist ropes, stage ropes and balance ropes in mine shafts.

It is used in conjunction with EN 12385-1 and EN 12385-2.

NOTE This European Standard can also be used for ropes in other mining applications, e.g. surface mining.

The additional hazards covered by this part of EN 12385 are listed in clause 4.

This part of EN 12385 is applicable to ropes for new installations and ropes that have been manufactured after the publication of this standard. It may also be applied to spare ropes for existing installations

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 10264-2, *Steel wire and wire products – Steel wire for ropes – Part 2: Cold drawn non alloy steel wire for ropes for general applications.*

EN 10264-3, *Steel wire and wire products – Steel wire for ropes – Part 3: Round and shaped non alloyed steel wire for high duty applications.*

EN 12385-1:2002, *Steel wire ropes – Safety – Part 1: General requirements.*

EN 12385-2:2002, *Steel wire ropes – Safety – Part 2: Definitions, designation and classification.*

DIN 21258, *Preservative compounds for Koepe friction drive winding ropes in mining – Safety requirements and testing.*

EN ISO 9001, *Quality management systems - Requirements (ISO 9001:2000).*

ISO 3155, *Stranded wire ropes for mine hoisting - Fibre components - Characteristics and tests.*

ISO 3156, *Stranded wire ropes for mine hoisting - Impregnation compounds, lubricants and service dressing - Characteristics and tests.*

3 Terms and definitions

For the purpose of this European Standard, the terms and definitions in EN 12385-2 apply together with the following:

3.1

calculated rope diameter d_c

theoretical diameter of a stranded rope where all outer strands just touch each other

3.2

built-up centre

centre of a strand comprising a number of small wires manufactured in a separate operation instead of a large disproportional centre wire of a parallel or compound lay construction