

**Steel wire and wire products - Steel wire for ropes - Part  
3: Round and shaped non alloyed steel wire for high  
duty applications**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 10264-3:2012 sisaldab Euroopa standardi EN 10264-3:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 10264-3:2012 consists of the English text of the European standard EN 10264-3:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 11.01.2012.	Date of Availability of the European standard is 11.01.2012.
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English Version

## Steel wire and wire products - Steel wire for ropes - Part 3: Round and shaped non alloyed steel wire for high duty applications

Fils et produits tréfilés en acier - Fils pour câbles - Partie 3:  
Fils ronds et profilés, en acier non aillé, pour fortes  
sollicitations

Stahldraht und Drahterzeugnisse - Stahldraht für Seile -  
Teil 3: Runder und profilierter Draht aus unlegiertem Stahl  
für hohe Beanspruchungen

This European Standard was approved by CEN on 19 November 2011.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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## Foreword

This document (EN 10264-3:2012) has been prepared by Technical Committee ECISS/TC 106 "Wire rod and wires", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 10264-3:2002.

This European Standard for wire for ropes is made up of the following parts:

- *Part 1: General requirements*
- *Part 2: Cold drawn non alloy steel wire for ropes for general applications*
- *Part 3: Round and shaped non alloyed steel wire for high duty applications*
- *Part 4: Stainless steel wire*

This European Standard has been technically revised to incorporate the following changes:

- a) heavy duty applications have been explained in the new last sentence of the scope;
- b) the purity of the zinc coating of the drawn wire has been specified according the relevant EN 1179 (see Clause 4);
- c) a footnote c) has been added in Table 1 in order to precise the meaning of coated;
- d) the values of the Z and H profiles have been updated in Table 2;
- e) a note has been added to allow other wire diameters higher than those given in Table 3 "Dimensional tolerances on round wire diameter" subject to an agreement between supplier and user at the time of order;
- f) modifications have been made on values concerning "Coated – Class A" given in Table 4 "Dimensional tolerances for shaped wire";
- g) modifications have been made in Table 5 "Minimum number of reverse bends for shaped wire for static applications" concerning the values of Z profile for the height of profile upper to 5 mm;
- h) a second quality of zinc coating has been added for dynamic applications (see 5.3.4);
- i) three additional ranges for Nominal dimensions of round wire (from 0,50 mm to 0,80 mm) have been added (see Table 11 "Minimum mass of coating").

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

## 1 Scope

This part of this European Standard specifies round and shaped non alloyed steel wire for use in the manufacture of ropes for mine hoisting, man-riding haulage, cableways for the transportation of passengers and other high duty applications. Heavy duty refers to situations where the stresses applied to the rope are either high or vary by a large amount during service.

This part of this European Standard refers to round wires and three types of shaped wire: full lock (Z), half lock (H) and trapezoidal (T).

In addition to the requirements of this part of this European Standard, the requirements of EN 10264-1 also apply.

It does not apply to steel wire taken from manufactured ropes.

This part of this European Standard specifies the following for cold drawn non alloyed steel wire for ropes for high duty applications:

- dimensional tolerances;
- mechanical characteristics;
- requirements relating to the chemical composition of the steel wire;
- conditions to be satisfied by any coating.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1179, *Zinc and zinc alloys — Primary zinc*

EN 10218-1, *Steel wire and wire products — General — Part 1: Test methods*

EN 10244-2, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 2: Zinc or zinc alloy coatings*

EN 10264-1:2011, *Steel wire and wire products — Steel wire for ropes — Part 1: General requirements*

EN ISO 16120-1:2011, *Non-alloy steel wire rod for conversion to wire - Part 1: General requirements (ISO 16120-1:2011)*

EN ISO 16120-2:2011, *Non-alloy steel wire rod for conversion to wire - Part 2: Specific requirements for general-purpose wire rod (ISO 16120-2:2011)*

EN ISO 16120-4:2011, *Non-alloy steel wire rod for conversion to wire - Part 4: Specific requirements for wire rod for special applications (ISO 16120-4:2011)*