

**Mittelegeerterasest varras tõmbamiseks ja/või  
külmvaltsimiseks. Osa 1: Üldnõuded (ISO 16120-1:2011)**

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

## EESTI STANDARDI EESSÕNA

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<p>Käesolev Eesti standard EVS-EN ISO 16120-1:2011 sisaldab Euroopa standardi EN ISO 16120-1:2011 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 29.07.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.07.2011.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 16120-1:2011 consists of the English text of the European standard EN ISO 16120-1:2011.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 29.07.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 01.07.2011.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

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

Fil-machine en acier non allié destiné à la fabrication de fils  
- Partie 1: Exigences générales (ISO 16120-1:2011)

Walzdraht aus unlegiertem Stahl zum Ziehen - Teil 1:  
Allgemeine Anforderungen (ISO 16120-1:2011)

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN ISO 16120-1:2011) has been prepared by Technical Committee ISO/TC 17 "Steel" in collaboration with 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of an identical text or by endorsement, at the latest by January 2012, and conflicting national standards shall be withdrawn at the latest by January 2012.

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### Endorsement notice

The text of ISO 16120-1:2011 has been approved by CEN as a EN ISO 16120-1:2011 without any modification.

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# Non-alloy steel wire rod for conversion to wire —

## Part 1: General requirements

### 1 Scope

**1.1** ISO 16120 is applicable to wire rod of non-alloy steel intended for wire drawing and/or cold rolling. The cross-section can be circular, oval, square, rectangular, hexagonal, octagonal, half-round or another shape, generally with at least 5 mm nominal dimension, and with a smooth surface.

**1.2** This part of ISO 16120 covers general requirements and is not applicable to products for which standards exist or are in development, for example:

- steel wire rod intended for heat treatment;
- free-cutting steel wire rod;
- steel wire rod for cold heading and cold extrusion;
- steel wire rod intended for the production of electrodes and products for welding;
- steel wire rod for welded fabric for reinforcement for concrete;
- steel wire rod for ball and roller bearings (see ISO 683-17);
- steel wire rod for wire for high fatigue strength mechanical springs, such as valve springs.

**1.3** In addition to the requirements of this part of ISO 16120, the general technical delivery requirements specified in ISO 404 apply.

### 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.

ISO 377, *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing*

ISO 404:1992, *Steel and steel products — General technical delivery requirements*

ISO 3887, *Steels — Determination of depth of decarburization*

ISO 4885, *Ferrous products — Heat treatments — Vocabulary*

ISO 4948-1, *Steels — Classification — Part 1: Classification of steels into unalloyed and alloy steels based on chemical composition*

ISO 4948-2, *Steels — Classification — Part 2: Classification of unalloyed and alloy steels according to main quality classes and main property or application characteristics*

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

ISO 6929, *Steel products — Definitions and classification*

ISO/TR 9769, *Steel and iron — Review of available methods of analysis*

ISO 10474, *Steel and steel products — Inspection documents*

ISO 14284, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition*

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

ISO 16120-3:2011, *Non-alloy steel wire rod for conversion to wire — Part 3: Specific requirements for rimmed and rimmed substitute, low-carbon steel wire rod*

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

ISO 16124, *Steel wire rod — Dimensions and tolerances*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 377, ISO 404, ISO 4885, ISO 4948-1, ISO 4948-2 and ISO 6929 and the following apply.

#### 3.1

##### **rod**

hot-rolled finished product hot-wound into irregular coils

NOTE Rod used for wire-drawing purposes in coil form is generally termed wire rod.

#### 3.2

##### **heat analysis**

chemical analysis representative of the heat, by a method determined at the steelmaker's discretion

NOTE Adapted from ISO 404:1992.

#### 3.3

##### **product analysis**

chemical analysis carried out on a sample of the product taken after the final hot rolling operation

NOTE Adapted from ISO 404:1992.

#### 3.4

##### **resolvable pearlite**

two-phased structure in which ferrite and iron carbide lamellae can be clearly observed under optical microscopy in certain conditions

### 4 Classification

The classification of the steel grades covered by this part of ISO 16120 is indicated in ISO 16120-2, ISO 16120-3 and ISO 16120-4 for the corresponding steel grades.