

SLOVENSKI STANDARD

SIST EN 10263-2:2018

01-februar-2018

Nadomešča:
SIST EN 10263-2:2002

**Jekleni drogovi, palice in žica za hladno nakrčevanje in hladno iztiskanje - 2. del:
Tehnični dobavni pogoji za jekla, ki niso namenjena za toplotno obdelavo po
hladni predelavi**

Steel rod, bars and wire for cold heading and cold extrusion - Part 2: Technical delivery conditions for steels not intended for heat treatment after cold working

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Walzdraht, Stäbe und Draht aus Kaltstauch- und Kaltfließpreßstählen - Teil 2:
Technische Lieferbedingungen für nicht für eine Wärmebehandlung nach der
Kaltverarbeitung vorgesehene Stähle

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Barres, fil machine et fils en acier pour transformation à froid et extrusion à froid - Partie
2: Conditions techniques de livraison des aciers n'étant pas destinés à un traitement
thermique après travail à froid

Ta slovenski standard je istoveten z: EN 10263-2:2017

ICS:

77.140.60	Jeklene palice in drogovi	Steel bars and rods
77.140.65	Jeklene žice, jeklene vrvi in verige	Steel wire, wire ropes and link chains

SIST EN 10263-2:2018

en,fr,de

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EUROPEAN STANDARD

EN 10263-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 77.140.60; 77.140.65

Supersedes EN 10263-2:2001

English Version

Steel rod, bars and wire for cold heading and cold extrusion - Part 2: Technical delivery conditions for steels not intended for heat treatment after cold working

Barres, fil machine et fils en acier pour transformation à froid et extrusion à froid - Partie 2: Conditions techniques de livraison des aciers n'étant pas destinés à un traitement thermique après travail à froid

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This European Standard was approved by CEN on 16 July 2017.

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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.

<https://standards.iteh.ai/catalog/standards/sist/6154f445-8d53-447f-8683-5686f8561a75>

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 10263-2:2017) 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 May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

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

This document supersedes EN 10263-2:2001.

This European Standard EN 10263 is subdivided as follows:

- *Part 1: General technical delivery conditions*
- *Part 2: Technical delivery conditions for steels not intended for heat treatment after cold working*
- *Part 3: Technical delivery conditions for case hardening steels*
- *Part 4: Technical delivery conditions for steels for quenching and tempering*
- *Part 5: Technical delivery conditions for stainless steel.*

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

EN 10263-2:2017 (E)**1 Scope**

1.1 This part of EN 10263 is applicable to round rod and bars and wire with a diameter up to and including 100 mm, of non-alloy and alloy steel, intended for cold heading and cold extrusion without subsequent heat treatment on the final components.

1.2 EN 10263-1 is indispensable for this part of EN 10263.

2 Normative references

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

EN 10020, *Definition and classification of grades of steel*

EN 10263-1:2017, *Steel rod, bars and wire for cold heading and cold extrusion — Part 1: General technical delivery conditions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10263-1:2017 apply.

4 Classification and designation**4.1 Classification**

All steel grades covered by this part of EN 10263 are non-alloy or alloy special steels (8MnSi7 and 7MnB8) according to EN 10020.

4.2 Designation**4.2.1 Steel names**

See EN 10263-1:2017.

4.2.2 Steel numbers

See EN 10263-1:2017.

5 Production process**5.1 General**

See EN 10263-1:2017.

5.2 Deoxidation

All steel grades quoted in Table 2, except 8MnSi7, are aluminium-killed steels. By agreement aluminium may be replaced by another suitable element having a similar effect.

6 Requirements

6.1 Delivery condition

The delivery conditions in which the products covered by this Part of this European Standard are normally supplied, the product forms and the applicable requirements are given in Table 1.

6.2 Chemical composition

6.2.1 Cast analysis

The chemical composition shall be in accordance with the values specified in Table 2 for the cast analysis.

6.2.2 Product analysis

In cases where a product analysis is requested, the admissible deviations from the values specified for the cast analysis are indicated in Table 3.

6.3 Mechanical properties

The mechanical properties of the products, to be determined by the tensile test, shall be in accordance with the prescriptions given in Table 4.

6.4 Surface quality

See EN 10263-1:2017.

6.5 Supplementary or special requirements

Other requirements that can be agreed at the time of enquiry and order are described in Annex A of EN 10263-1:2017. <https://standards.iteh.ai/catalog/standards/sist/6154f445-8d53-447f-8683-d36af768e692/sist-en-10263-2-2018>

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Table 1 — Summary of delivery conditions, product forms and applicable requirements

Delivery condition	Symbols	Product form ^a			Applicable requirements		
		rod	bar	wire			
as hot rolled	+U	X	X	—	Chemical composition as specified in Tables 2 and 3	Mechanical properties as specified in Table 4	Supplementary or special requirements as specified in Annex A of EN 10263-1 ^b
peeled	+U+PE	X	X	—			
cold drawn	+U+C	—	X	X			
cold drawn and spheroidized	+U+C+AC	—	X	X			
cold drawn and spheroidized and skin passed	+U+C+AC+LC	—	X	X			
Annealed to achieve spheroidized carbides or Annealed to achieve spheroidized carbides and peeled	+AC or +AC+PE	X	X	—			
Annealed to achieve spheroidized carbides and cold drawn	+AC+C	—	X	X			
other	Other delivery conditions may be agreed at the time of ordering						
^a X = applicable — = not applicable ^b If agreed at the time of enquiry and order.							

Table 2 — Chemical composition, cast analysis % by mass ^a

Steel grades		C	Si	Mn	P max.	S max.	Al ^b
Name	Number						
C2C	1.0314	0,03 max.	0,10 max.	0,20 to 0,40 ^d	0,020	0,025	0,020 to 0,060
C4C	1.0303	0,02 to 0,06	0,10 max.	0,25 to 0,40	0,020	0,025	0,020 to 0,060
C8C	1.0213	0,06 to 0,10	0,10 max.	0,25 to 0,45	0,020	0,025	0,020 to 0,060
C10C	1.0214	0,08 to 0,12	0,10 max. ^c	0,30 to 0,50	0,025	0,025	0,020 to 0,060
C15C	1.0234	0,13 to 0,17	0,10 max. ^c	0,35 to 0,60	0,025	0,025	0,020 to 0,060
C17C	1.0434	0,15 to 0,19	0,10 max. ^c	0,65 to 0,85	0,025	0,025	0,020 to 0,060
C20C	1.0411	0,18 to 0,22	0,10 max. ^c	0,70 to 0,90 ^d	0,025	0,025	0,020 to 0,060
8MnSi7	1.5113	0,10max.	0,90 to 1,10	1,60 to 1,80	0,025	0,025	0,020 max.
7MnB ^{e, f}	1.5519	0,06 to 0,09	0,15 to 0,25	1,85 to 1,95	0,015	0,025	0,02 to 0,04

^a Elements not quoted in this table should not be intentionally added to the steel without the agreement of the purchaser, except those intended for finishing the heat. All reasonable precautions shall be taken in order to prevent the addition of elements from scrap or other material used in the production process. However, residual elements may be present provided that they do not affect the mechanical properties and applicability.

^b Aluminium may be replaced by another element or elements having a similar effect.

^c For grades C10C, C15C, C17C, C20C, a silicon content of 0,15 to 0,25 % may be specified for hot dip galvanising; in this case the mechanical properties as stated in Table 4 may be affected.

^d For grades C2C and C20C a lower manganese content may be specified with a range of 0,20 %.

^e For steel grade 1.5519 following elements may be added: Cr ≤ 0,2 %; Mo ≤ 0,05 %, Ni ≤ 0,25 %, V = 0,03 to 0,05 %, Ti = 0,06 to 0,1 %, B = 0,001 5 % to 0,003 0 %.

^f specific application is patented