SLOVENSKI STANDARD
SIST EN 10263-5:2018

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Nadomešča:
SIST EN 10263-5:2002

Jekleni drogovi, palice in žica za hladno nakrčevanje in hladno iztiskanje - 5. del: Tehnični dobavni pogoji za nerjavna jekla

Steel rod, bars and wire for cold heading and cold extrusion - Part 5: Technical delivery conditions for stainless steels

Walzdraht, Stäbe und Draht aus Kaltstauch- und Kaltfließpressstählen - Teil 5: Technische Lieferbedingungen für nichtrostende Stähle

Barres, fil machine et fils en acier pour transformation à froid et extrusion à froid - Partie 5: Conditions techniques de livraison des aciers inoxydables

Ta slovenski standard je istoveten z: **EN 10263-5:2017**

ICS:

77.140.20	Visokokakovostna jekla	Stainless steels
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 10263-5:2018 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 10263-5

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ICS 77.140.60; 77.140.65

Supersedes EN 10263-5:2001

English Version

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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 10263-5:2017) 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of an identical text or by endorsement, at the latest by May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.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 10263-5:2001.

This European Standard EN 10263, *Steel rod, bars and wire for cold heading and cold extrusion*, 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 steels*.

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, 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.

1 Scope

1.1 This European Standard is applicable to round rod, round bars and wire made of stainless steels intended for cold heading and cold extrusion having a diameter up to and including:

— 25 mm for ferritic and austenitic-ferritic steels;

— 50 mm for austenitic steels;

— 100 mm for martensitic steels.

1.2 EN 10263-1 is indispensable for the application of 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 10088-1:2014, *Stainless steels — Part 1: List of stainless steels*

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 and the following apply.

3.1
stainless steels
steels with at least 10,5 % Cr and max. 1,2 % C (mass fraction)

4 Classification and designation

4.1 Classification

All steels covered by this part of EN 10263 are stainless steels according to EN 10020.

From a practical viewpoint these steels are also classified on the basis of their structure; see also EN 10088-1:2014, Annex C.

4.2 Designation

See EN 10263-1.

5 Production Process

See EN 10263-1.

6 Requirements

6.1 Delivery conditions

The delivery conditions in which the products covered by this part of EN 10263 are normally supplied, the product forms and the applicable requirements are given in Table 1 and Table 2.

6.2 Chemical composition

6.2.1 Cast analysis

The chemical composition shall be in accordance with the values specified in Table 3 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 4.

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 5, Table 6, Table 7 and Table 8.

6.4 Surface quality

6.4.1 Rod is normally supplied in the pickled condition. Mechanical descaling (sandblasting) can also be used, in which case a subsequent treatment in a pickling solution shall be carried out unless otherwise agreed. Particular processes such as peeling or shaving may also be applied, subject to specific agreement at the time of enquiry and order.

6.4.2 Minor surface imperfections which may occur under normal manufacturing conditions, such as scores originating from rolled-in scale, shall not be regarded as defects.

6.4.3 Any particular surface requirements may be agreed at the time of enquiry and order.

6.5 Supplementary or special requirements

6.5.1 Aptitude to cold forming

A test for the verification of the aptitude of products to cold forming may be carried out if agreed at the time of enquiry and order.

If for the verification of the aptitude to cold forming the upsetting test is applied, it shall be carried out as follows:

— a test piece with an initial length (height) equal to 1,5 x d, where d is the product diameter, is submitted to axial heading by means of a press until its length is reduced to 1/3 of the initial value.

The above test shall be carried out at ambient temperature and limited to the products with a maximum diameter of 15 mm.

The criteria for the assessment of test results shall be agreed at the time of ordering bearing in mind the end use for which the products are intended.

6.5.2 Depth of surface discontinuities

The maximum admissible depth of surface discontinuities is indicated in Table 9. The depth of a discontinuity is considered as being the distance between the surface of the product and the bottom of

the discontinuity, to be measured in a direction perpendicular to the surface along a radius. In case of dispute the determination of the depth of surface discontinuities shall be carried out by metallographic means with a magnification of X 100, on a straight cross section of the product in the delivery condition concerned.

Table 1 — Combination of usual heat-treatment conditions, product forms and applicable requirements

Heat-treatment condition at delivery	Symbol	Product form [a]			Steels			Applicable requirements		
		bar	rod	wire	ferritic	martensitic	austenitic and austenitic-ferritic			
Soft annealed	+A	X	X	X	X	X	–	Chemical composition as specified in Table 3	Mechanical properties as specified in Table 5 or 6 or 7 or 8	Supplementary or special requirements as specified in EN 10263–1:2017, Annex A[b]
Solution annealed	+AT	X	X	X	–	–	X			
Others	Other delivery conditions may be agreed at the time of enquiry and order.									

[a] X = applicable
– = not applicable

[b] If agreed at the time of the enquiry and order.

Table 2 — Surface condition at delivery

Surface condition at delivery	Symbol	bar	rod	wire
Cold drawn	+C	–	x	x
Peeled	+PE	x	–	x
Skin passed	+LC	–	–	x