

## SLOVENSKI STANDARD oSIST prEN 10025-4:2018

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Vroče valjani izdelki iz konstrukcijskih jekel - 4. del: Tehnični dobavni pogoji za termomehansko obdelana valjana variva drobnozrnata konstrukcijska jekla

Hot rolled products of structural steels - Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels

Warmgewalzte Erzeugnisse aus Baustählen - Teil 4: Technische Lieferbedingungen für thermomechanisch gewalzte schweißgeeignete Feinkornbaustähle

Produits laminés à chaud en aciers de construction - Partie 4 : Conditions techniques de livraison pour les aciers de construction soudable à grains fins obtenus par laminage thermomécanique

Ta slovenski standard je istoveten z: prEN 10025-4

#### ICS:

77.140.10 Jekla za toplotno obdelavo Heat-treatable steels

77.140.50 Ploščati jekleni izdelki in Flat steel products and semi-

polizdelki products

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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ICS 77.140.10; 77.140.50

Will supersede EN 10025-4:2004

#### **English Version**

# Hot rolled products of structural steels - Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels

Produits laminés à chaud en aciers de construction -Partie 4 : Conditions techniques de livraison pour les aciers de construction soudable à grains fins obtenus par laminage thermomécanique Warmgewalzte Erzeugnisse aus Baustählen - Teil 4: Technische Lieferbedingungen für thermomechanisch gewalzte schweißgeeignete Feinkornbaustähle

This draft European Standard is submitted to CEN members for second enquiry. It has been drawn up by the Technical Committee ECISS/TC 103.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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#### **European foreword**

This document (prEN 10025-4:2018) has been prepared by Technical Committee ECISS/TC 103 "Structural steels other than reinforcements", the secretariat of which is held by DIN.

This document is currently submitted to the second CEN Enquiry.

This document will supersede EN 10025-4:2004.

This European Standard consists of the following parts, under the general title *Hot rolled products of structural steels:* 

- Part 1: General
- Part 2: Technical delivery conditions for non-alloy structural steels
- Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels
- Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels
- Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance
- Part 6: Technical delivery conditions for flat products of high yield strength structural steels in the quenched and tempered condition

For a short transition period there will be a coexistence of EN 10025-1:2004 with EN 10025-2 to EN 10025-6:2018, since the new EN 10025-1 has to fulfil the requirements of the CPR and will therefore be published later. For this short transition period up-to-the publication of the next edition of part 1 the following has to be taken into account for EN 10025-1:2004:

- a) all dated and undated references to EN 10025-1:2004 to EN 10025-6:2004 are unchanged to this version with following exception: In 9.2.2.1 the reference must be 8.3.1 and 8.3.2 instead of 8.4.1 and 8.4.2.
- b) Clauses 5, 12 and 13 of EN 10025-1:2004 are no longer relevant.

The main changes with respect to the previous edition are listed below:

- a) part 4 is now a stand-alone standard for technical delivery conditions including the preparation of samples and test pieces, the test methods, the marking, labelling and packaging and the drawings;
- b) for construction purposes this standard and part 1 must be used together;
- c) requirements for elements not definded were added to 7.2.1 and 7.2.2;
- d) Option 33 was added, Option 3 was renumbered to Option 24 and Option 9 was deleted;
- e) Si-content in 7.2.4 was changed;
- f) 7.4.3 concerning hot-dip zinc coating was modified;
- g) key to Figure A.1 was updated;
- h) steel grade S500M was added;

- i) Annex B deleted;
- j) references were updated and document editorial revised.

#### 1 Scope

This document specifies technical delivery conditions for flat and long products of hot rolled weldable fine grain structural steels in the thermomechanical rolled condition in the grades and qualities given in Tables 1 to 3 (chemical composition) and Tables 4 to 6 (mechanical properties) in thickness  $\leq$  150 mm.

The steels specified in this document are especially intended for use in heavily loaded parts of welded structures such as, bridges, flood gates, storage tanks, water supply tanks, etc., for service at ambient and low temperatures.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

#### 2.1 General standards

EN 1011-2, Welding — Recommendations for welding of metallic materials — Part 2: Arc welding of ferritic steels

EN 10020:2000, Definition and classification of grades of steel

EN 10021, General technical delivery conditions for steel products

EN 10025-1:2004, Hot rolled products of structural steels — Part 1: General technical delivery conditions

EN 10027-1, Designation systems for steels — Part 1: Steel names

EN 10027-2, Designation systems for steels — Part 2: Numerical system

EN 10079, Definition of steel products

EN 10163-1, Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 1: General requirements

EN 10163-2, Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 2: Plate and wide flats

EN 10163-3, Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 3: Sections

EN 10164, Steel products with improved deformation properties perpendicular to the surface of the product — Technical delivery conditions

EN 10168, Steel products — Inspection documents — List of information and description

EN 10204, Metallic products — Types of inspection documents

CR 10320, Optical emission analysis of low alloy steels (routine method) — Method for determination of C, Si, S, P, Mn, Cr, Ni and Cu

CEN/TR 10347, Guidance for forming of structural steels in processing

FprEN ISO 9443:2018, Surface quality classes for hot-rolled bars and wire rod (ISO/FDIS 9443:2018)