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BSI Standards Publication

Hot rolled products of structural steels

Part 2: Technical delivery conditions for non-alloy structural steels

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National foreword

This British Standard is the UK implementation of EN 10025-2:2019. It supersedes BS EN 10025-2:2004, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/103, Structural Steels Other Than Reinforcements.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2019
Published by BSI Standards Limited 2019

ISBN 978 0 580 73966 8

ICS 77.140.10; 91.100.99; 77.140.50; 77.140.45

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2019.

Amendments/corrigenda issued since publication

Date	Text affected
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EUROPÄISCHE NORM

August 2019

ICS 77.140.10; 77.140.45; 77.140.50

Supersedes EN 10025-2:2004

English Version

Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels

Produits laminés à chaud en aciers de construction -
Partie 2 : Conditions techniques de livraison pour les
aciers de construction non alliés

Warmgewalzte Erzeugnisse aus Baustählen - Teil 2:
Technische Lieferbedingungen für unlegierte
Baustähle

This European Standard was approved by CEN on 16 June 2019.

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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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European foreword

This document (EN 10025-2:2019) has been prepared by Technical Committee CEN/TC 459/SC 3 "Structural steels other than reinforcement", the secretariat of which is held by DIN.

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 February 2020 and conflicting national standards shall be withdrawn at the latest by February 2020.

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 10025-2:2004.

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

- *Part 1: General technical delivery conditions*
- *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 10025-2:2019 to EN 10025-6:2019, 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 is 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 references are 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 2 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 applications under the CPR, this document and part 1 are used together;
- c) requirements for elements not defined were added to 7.2.1 and 7.2.2;
- d) Option 33 was added, Options 9 and 21 were deleted;
- e) Si-content in 7.2.5 was changed;
- f) 7.4.3 concerning hot-dip zinc coating was modified;

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- g) key to Figure A.1 was updated;
- h) steel grade S450 was deleted and steel grades S460 and S500 were added;
- i) Annex B concerning the corresponding EURONORMS was deleted;
- j) references were updated and the document was editorially revised.

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, Republic of North 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.

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1 Scope

This document specifies the technical delivery conditions for flat and long products as well as semi-finished products which are meant for further processing to flat and long products of hot rolled non-alloy quality steels in the grades and qualities given in Tables 1 to 5 (chemical composition) and Tables 6 to 8 (mechanical properties) in the usual delivery conditions as given in 6.3. Three engineering steels are also specified in this document (see Tables 2 and 4) (chemical composition) and Table 7 (mechanical properties). This document does not apply to structural hollow sections (see EN 10210-1 and EN 10219-1) and tubes.

The technical delivery conditions apply to:

- thicknesses ≥ 3 mm and ≤ 150 mm for long products of steel grade S460JR, J0, J2, K2 and S500J0;
- thicknesses ≤ 400 mm for flat products of qualities JR, J0, J2 and K2;
- thicknesses ≤ 250 mm for flat and long products of all other grades and qualities.

The steels specified in this document are not intended to be heat treated except products delivered in the delivery condition +N. Stress relieving is accepted. Products delivered in +N condition can be hot formed and/or normalized after delivery (see Clause 3).

This document foresees that semi-finished products which are to be converted to rolled finished products conforming to this document are the subject of special agreements at the time of the order. The chemical compositions are also agreed to at the time of the order; the values are within the limits of Tables 1 and 2.

For certain grades and product forms suitability for particular applications are specified at the time of the order (see 7.4.2, 7.4.3 and Table 9).

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.

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

EN 10017, *Steel rod for drawing and/or cold rolling — Dimensions and tolerances*

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

EN 10021, *General technical delivery conditions for steel products*

EN 10024, *Hot rolled taper flange I sections — Tolerances on shape and dimensions*

EN 10025-1, *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 10029, *Hot-rolled steel plates 3 mm thick or above — Tolerances on dimensions and shape*

EN 10034, *Structural steel I and H sections — Tolerances on shape and dimensions*

EN 10048, *Hot rolled narrow steel strip — Tolerances on dimensions and shape*

EN 10051, *Continuously hot-rolled strip and plate/sheet cut from wide strip of non-alloy and alloy steels — Tolerances on dimensions and shape*