ILNAS

Institut luxembourgeois de la normalisation
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ILNAS-EN 10025-4:2019+A1:2022

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

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

12/2022

National Foreword

This European Standard EN 10025-4:2019+A1:2022 was adopted as Luxembourgish Standard ILNAS-EN 10025-4:2019+A1:2022.

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 10025-4:2019+A1

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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 European Standard was approved by CEN on 16 June 2019 and includes Amendment 1 approved by CEN on 25 October 2022.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 10025-4:2019+A1:2022) has been prepared by Technical Committee CEN/TC 459/SC 3 “Structural steels other than reinforcements”, 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 June 2023 and conflicting national standards shall be withdrawn at the latest by June 2023.

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 ⟩A1⟨ EN 10025-4:2019 ⟩A1⟨.

This document includes Amendment 1 approved by CEN on 25 October 2022.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ⟩A1⟨ ⟩A1⟨.

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 ⟩A1⟨ EN 10025-6:2019+A1:2022 ⟩A1⟨, 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 ⟩A1⟨ edition EN 10025−4:2004 ⟩A1⟨ 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 applications under the CPR this document and part 1 are 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 concerning the corresponding EURONORMS deleted;

j) references were updated and document editorial revised.

A1 In comparison with the previous version EN 10025-4:2019, the following modifications have been made:

— references were updated in the European foreword;

— a sentence was added to 9.2.3.2. A1

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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 ≤ 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.

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*

EN 10055, *Hot rolled steel equal flange tees with radiused root and toes — Dimensions and tolerances on shape and dimensions*

EN 10056-1, *Structural steel equal and unequal leg angles — Part 1: Dimensions*

EN 10056-2, *Structural steel equal and unequal leg angles — Part 2: Tolerances on shape and dimensions*

EN 10058, *Hot rolled flat steel bars and steel wide flats for general purposes — Dimensions and tolerances on shape and dimensions*

EN 10059, *Hot rolled square steel bars for general purposes — Dimensions and tolerances on shape and dimensions*