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Hot rolled flat products made of high yield strength steels for cold forming - Part 1: General technical delivery conditions

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/14

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EUROPEAN STANDARD

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EN 10149-1

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Supersedes EN 10149-1:1995

English Version

Hot rolled flat products made of high yield strength steels for cold forming - Part 1: General technical delivery conditions

Produits plats laminés à chaud en aciers à haute limite d'élasticité pour formage à froid - Partie 1: Conditions générales techniques de livraison

Warmgewalzte Flacherzeugnisse aus Stählen mit hoher Streckgrenze zum Kaltumformen - Teil 1: Allgemeine technische Lieferbedingungen

This European Standard was approved by CEN on 17 August 2013.

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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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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 10149-1:2013) has been prepared by Technical Committee ECISS/TC 103 “Structural steel 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of an identical text or by endorsement, at the latest by March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.

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

This document supersedes EN 10149-1:1995.

In comparison with EN 10149-1:1995, the following significant technical changes were made:

— definition 3.2, Note 1 modified;

— subclause 7.4.1.1, Note modified and changed to standard text;

— subclause 7.5.1, Note 2 for welding suitability of grades S900MC and S960MC added;

— Table 1, values for Mn, Ti and Mo modified.

The specific requirements for hot rolled products made of high yield strength steels for cold forming are given in the EN 10149-2 and EN 10149-3. The titles of the other Parts of this European Standard are:

— *Part 2: Technical delivery conditions for thermomechanical rolled steels*;

— *Part 3: Technical delivery conditions for normalized or normalized rolled steels*.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

1.1 This European Standard specifies requirements for flat products made of weldable, hot-rolled, high yield strength alloy quality and special steels for cold forming.

EN 10149-1 specifies the general delivery conditions.

EN 10149-2 specifies the delivery conditions for thermomechanically rolled steels in the grades given in Table 1 (chemical composition) and Table 2 (mechanical properties) of Part 2.

EN 10149-3 specifies the delivery conditions for normalised or normalised rolled steels in the grades given in Table 1 (chemical composition) and Table 2 (mechanical properties) of Part 3.

1.2 This European Standard does not apply to products for pressure vessels and products for which other European Standards exist or European Standards dealing with steels for general structural applications are being prepared:

- Hot-rolled products of structural steels (see EN 10025 parts 1 to 6);
- Hot finished structural hollow sections of non-alloy and fine grain steels (see EN 10210-1).

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 10021, *General technical delivery conditions for steel products*

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

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 10052:1993, *Vocabulary of heat treatment terms for ferrous products*

EN 10079:2007, *Definition of steel products*

EN 10149-2:2013*, Hot rolled flat products made of high yield strength steels for cold forming – Part 2: Technical delivery conditions for thermomechanically rolled steels*

EN 10149-3:2013*, Hot rolled flat products made of high yield strength steels for cold forming – Part 3: Technical delivery conditions for normalized or normalized rolled steels*

EN 10160, *Ultrasonic testing of steel flat product of thickness equal to or greater than 6 mm (reflection method)*

EN 10162, *Cold-rolled steel sections – Technical delivery conditions – Dimensional and cross-sectional tolerances*

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 10168, *Steel products – Inspection documents – List of information and description*

EN 10204, *Metallic products – Types of inspection documents*

EN ISO 148-1, *Metallic materials – Charpy pendulum impact test – Part 1: Test method (ISO 148-1)*

EN ISO 377, *Steel and steel products – Location and preparation of samples and test pieces for mechanical testing (ISO 377)*

EN ISO 2566-1, *Steel – Conversion of elongation values – Part 1: Carbon and low alloy steels (ISO 2566-1)*

EN ISO 6892-1:2009, *Metallic materials – Tensile testing – Part 1: Method of test at room temperature (ISO 6892-1:2009)*

EN ISO 7438, *Metallic materials – Bend test (ISO 7438)*