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Hot-rolled twin-roll cast steel sheet of commercial quality

Tôles en acier laminées à chaud par coulée entre cylindres, de qualité commerciale

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 12, *Continuous mill flat rolled products*.

This second edition cancels and replaces the first edition (ISO 15177:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

— complete editorial revision.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Hot-rolled twin-roll cast steel sheet of commercial quality

1 Scope

This document specifies the requirements for hot-rolled twin-roll cast steel sheet of commercial quality.

The product is intended for applications where the presence of oxide or scale or normal surface imperfections disclosed after removal of oxide or scale are not objectionable. It is not suitable for applications where the surface is of prime importance.

This document does not cover steel sheet that is subjected to subsequent rolling.

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.

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

ISO 16160, *Hot-rolled steel sheet products — Dimensional and shape tolerances*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
hot-rolled twin-roll cast steel sheet
product resulting from the twin-roll process to obtain the required sheet thickness and tolerances

3.2
hot-rolled descaled steel sheet
hot-rolled steel sheet from which oxide or scale has been removed, commonly by pickling in an acid solution

Note 1 to entry: Descaling can also be performed by mechanical methods, such as grit blasting. Some change in properties can result from descaling.

3.3
skin pass
light cold rolling of the product

Note 1 to entry: The purpose of the skin passing is one or more of the following: to minimize the appearance of coil breaks, stretcher strains and fluting; to control the shape; and to obtain the required surface finish.

Note 2 to entry: Some increase in hardness and some loss in ductility will result from skin passing.

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3.4
mill edge
normal side edge without any definite contour produced in hot rolling

Note 1 to entry: Mill edges can contain some irregularities, such as cracked or torn edges or thin (feathered) edges.

3.5
sheared edge
normal edge obtained by shearing, slitting, or trimming a mill edge product

Note 1 to entry: Normal processing does not necessarily provide a definite position of the slitting burr.

3.6
twin-roll cast steel sheet
steel sheet produced by casting to near final thickness directly from the liquid metal with minimal hot rolling to achieve the final thickness

3.7
lot
up to a specified quantity of steel sheet of the same designation rolled to the same thickness and condition

4 Dimensions

4.1 Hot-rolled twin-roll cast steel sheet is commonly produced in thicknesses from 0,7 mm to 2,0 mm inclusive and in widths of up to 2 000 mm in coils and cut lengths.

4.2 Hot-rolled twin-roll cast steel sheet less than 600 mm wide, slit from wide sheet, is considered as sheet.

5 Conditions of manufacture

5.1 Steelmaking

Unless otherwise agreed by the interested parties, the processes used in making the steel and in manufacturing hot-rolled twin-roll cast steel sheet are left to the discretion of the manufacturer. On request, the purchaser shall be informed of the steelmaking process being used.

5.2 Chemical composition

The chemical composition (heat analysis) shall conform to the requirements given in Tables 1 and 2.

5.3 Chemical analysis

5.3.1 Heat analysis

An analysis of each heat shall be made by the manufacturer in order to determine conformity with the requirements given in Tables 1 and 2. On request, a report of the heat analysis shall be made available to the purchaser or the purchaser's representative. Each of the elements listed in Tables 1 and 2 shall be included in the report of the heat analysis. When the amount of copper, nickel, chromium or molybdenum present is less than 0,02 %, the analysis may be reported as "<0,02 %".

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