

INTERNATIONAL STANDARD

**ISO
6316**

Second edition
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Hot-rolled steel strip of structural quality

Feuillards laminés à chaud en acier de construction



Reference number
ISO 6316:1993(E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 6316 was prepared by Technical Committee ISO/TC 17, *Steel*, Sub-Committee SC 12, *Continuous mill flat rolled products*.

This second edition cancels and replaces the first edition (ISO 6316:1982), which has been technically revised.

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International Organization for Standardization
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Hot-rolled steel strip of structural quality

1 Scope

1.1 This International Standard applies to hot-rolled steel strip of structural quality in the grades and classes listed in tables 1 and 2, usually without the use of microalloying elements. The product is intended for structural purposes where particular mechanical properties are required. It is generally used in the delivered condition and is intended for bolted, riveted or welded structures. This product is rolled on a narrow strip mill.

1.2 This product is commonly produced in thicknesses from 0,65 mm to 12 mm inclusive and widths up to 600 mm exclusive, in coils and cut lengths.

1.3 This International Standard does not cover strip steels designated as commercial quality or drawing qualities (covered in ISO 6317¹⁾) or steels intended for boilers or pressure vessels, or steels to be rerolled to cold-reduced products, or steels designated as weathering steels, having increased atmospheric corrosion resistance.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 148:1983, *Steel — Charpy impact test (V-notch)*.

ISO 6892:1984, *Metallic materials — Tensile testing*.

ISO 7438:1985, *Metallic materials — Bend test*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 microalloying elements: Elements, such as niobium, vanadium, titanium, etc., added singly or in combination to obtain higher strength levels combined with better formability, weldability and toughness as compared with non-alloyed steel produced to equivalent strength levels.

3.2 hot-rolled steel strip: A product obtained usually by rolling heated steel (billet or slab) through a continuous-type mill to the required strip thickness and tolerances. The product has a surface covered with oxide or scale resulting from the hot-rolling operation.

3.3 hot-rolled descaled steel strip: Hot-rolled steel strip from the surface of which oxide or scale has been removed, commonly by pickling in an acid solution. Descaling may also be performed by mechanical means such as grit blasting. Some change in properties may result from descaling.

As a deterrent to rusting, a coating of oil is usually applied to hot-rolled descaled steel strip, but strip may be furnished not oiled if required. The oil is not intended as a forming lubricant and shall be easily removable with degreasing chemicals. On request, the manufacturer shall advise the purchaser which type of oil has been used.

3.4 mill edge: A normal side edge produced without any definite contour in hot rolling. Mill edges may contain some irregularities such as cracked or torn edges or thin (feathered) edges.

A square mill edge can be produced by hot-edge rolling (with the corners not as square as a square-edge bar).

3.5 edge trimmed: A normal edge obtained by shearing, slitting or trimming a mill-edge product.

1) ISO 6317:1982, *Hot-rolled carbon steel strip of commercial and drawing qualities*.