
Structural steels —

**Part 1:
General technical delivery conditions
for hot-rolled products**

Aciers de construction —

*Partie 1: Conditions générales techniques de livraison pour les
produits laminés à chaud*



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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 17, Steels, Subcommittee SC 3, *Steels for structural purposes*.

This second edition cancels and replaces the first edition (ISO 630-1:2011), which has been technically revised. The main changes compared to the previous edition are as follows:

- List of normative references has been updated.
- In Tables, the designations concerning thickness have been changed to “nominal thickness”.
- ISO 657-16 has been deleted from [Clause 2](#) and the text in [6.7.1](#).
- Terms and definitions of “non-specific inspection” and “specific inspection” have been deleted, because ISO 404 and ISO 10474 have been added in [Clause 2](#).
- Designation of qualities has been added.
- List of options has been updated.
- Content of [Table A.1](#) has been updated.
- The bibliography has been updated.
- The content of the document has been updated to harmonize with all parts of ISO 630.

A list of all parts in the ISO 630 series can be found on the ISO website.

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.

Structural steels —

Part 1: General technical delivery conditions for hot-rolled products

1 Scope

This document specifies the general technical delivery conditions for steel flat and long products (plates/ sections/wide flats and bars) used principally for general-purpose structural steels. The steels specified in this document are intended for use in welded or bolted structures.

The specific requirements for structural steels are given in the individual parts of ISO 630.

This document does not include the following structural steels, some of which are covered by other International Standards:

- sheet and strip: refer to ISO TC 17/SC 12 “Continuous mill flat rolled products”;
- tubular products: refer to ISO TC 5/SC 1 “Steel tubes”.

NOTE 1 Lists of standards covered by ISO/TC 17/SC 12 and ISO/TC 5/SC 1 are available on the ISO website.

NOTE 2 In all parts of ISO 630, the term of “thickness” is considered as “nominal thickness”, unless otherwise stated.

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 148-1, *Metallic materials — Charpy pendulum impact test — Part 1: Test method*

ISO 377, *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing*

ISO 404, *Steel and steel products — General technical delivery requirements*

ISO 630-2, *Structural steels — Part 2: Technical delivery conditions for structural steels for general purposes*

ISO 630-3, *Structural steels — Part 3: Technical delivery conditions for fine-grain structural steels*

ISO 630-4, *Structural steels — Part 4: Technical delivery conditions for high yield strength quenched and tempered structural steel plates*

ISO 630-5, *Structural steels — Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance*

ISO 630-6, *Structural steels — Part 6: Technical delivery conditions for seismic-improved structural steels for building*

ISO 2566-1, *Steel — Conversion of elongation values — Part 1: Carbon and low alloy steels*

ISO 4885, *Ferrous materials — Heat treatments — Vocabulary*

ISO 4948-1, *Steels — Classification — Part 1: Classification of steels into unalloyed and alloy steels based on chemical composition*

ISO 4948-2, *Steels — Classification — Part 2: Classification of unalloyed and alloy steels according to main quality classes and main property or application characteristics*

ISO/TS 4949, *Steel names based on letter symbols*

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

ISO 6929, *Steel products — Vocabulary*

ISO 7778, *Through-thickness characteristics for steel products*

ISO 7788, *Steel — Surface finish of hot-rolled plates and wide flats — Delivery requirements*

ISO 9034, *Hot-rolled structural steel wide flats — Tolerances on dimensions and shape*

ISO 9443, *Surface quality classes for hot-rolled bars and wire rod*

ISO/TS 9769, *Steel and iron — Review of available methods of analysis*

ISO 10474, *Steel and steel products — Inspection documents*

ISO 14284, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition*

ISO 17577, *Steel — Ultrasonic testing of steel flat products of thickness equal to or greater than 6 mm*

ISO 20723, *Structural steels — Surface condition of hot-rolled sections — Delivery requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 404, ISO 4885, ISO 4948-1, ISO 4948-2, ISO 6929 and ISO 10474 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/>

4 Classification and designation

4.1 Classification

The classification of the steel grades in accordance with ISO 4948-1 and ISO 4948-2 is given in the individual parts of ISO 630, depending on the steel grade chemical composition and treatment condition.

4.2 Designation

The steel grades specified in the individual parts of ISO 630 are designated with steel names in accordance with ISO/TS 4949.

Qualities differ in their impact energy requirements:

- Quality A : no impact testing
- Quality B : impact testing at 20 °C
- Quality C : impact testing at 0 °C