

INTERNATIONAL STANDARD

ISO
4950-1

Second edition
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High yield strength flat steel products —

Part 1: General requirements

Produits plats en acier à haute limite d'élasticité

Part 1: Prescriptions générales



Reference number
ISO 4950-1:1995(E)

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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.

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 4950-1 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 3, *Steels for structural purposes*.

This second edition cancels and replaces the first edition (ISO 4950-1: 1981), which has been technically revised.

ISO 4950 consists of the following parts, under the general title *High yield strength flat steel products*:

- *Part 1: General requirements*
- *Part 2: Products supplied in the normalized or controlled rolled condition*
- *Part 3: Products supplied in the heat-treated (quenched + tempered) condition*

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High yield strength flat steel products —

Part 1:

General requirements

1 Scope

This part of ISO 4950 specifies the methods of manufacture, the acceptance conditions and the marking of high yield strength flat steel products.

It applies to hot-rolled plates, wide strip in coils of width greater than or equal to 600 mm, and wide flats in high yield strength steels (R_e min. ≥ 355 N/mm²) in the thicknesses and conditions specified in ISO 4950-2 and ISO 4950-3 for use in bolted, rivetted or welded structures¹⁾.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 4950. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 4950 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 377-1:1989, *Selection and preparation of samples and test pieces of wrought steel — Part 1: Samples and test pieces for mechanical tests*.

ISO 377-2:1989, *Selection and preparation of samples and test pieces of wrought steel — Part 2: Samples for the determination of the chemical composition*.

ISO 404:1992, *Steel and steel products — General technical delivery requirements*.

ISO 2566-1:1984, *Steel — Conversion of elongation values — Part 1: Carbon and low alloy steels*.

ISO 4950-2:1995, *High yield strength flat steel products — Part 2: Products supplied in the normalized or controlled rolled condition*.

ISO 4950-3:1995, *High yield strength flat steel products — Part 3: Products supplied in the heat-treated (quenched + tempered) condition*.

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

ISO 6929:1987, *Steel products — Definitions and classification*.

ISO 7452:1984, *Hot-rolled structural steel plates — Tolerances on dimensions and shape*.

ISO 7788:1985, *Steel — Surface finish of hot-rolled plates and wide flats — Delivery requirements*.

ISO 10474:1991, *Steel and steel products — Inspection documents*.

3 Definitions

For the purposes of this part of ISO 4950, the definitions of the terms "plates", "wide strip" and "wide flat" given in ISO 6929 apply.

4 Manufacture

4.1 Steelmaking method

Unless otherwise agreed at the time of ordering, the steelmaking method is left to the discretion of the manufacturer; however, it shall be stated to the purchaser on request at the time of delivery.

1) For precautions to be taken when welding, the guide for the welding and weldability of C-Mn and C-Mn micro-alloy steels published by Sub-commission IX-G of the International Institute of Welding (Document ISS/IIW 843-87) may be helpful.