

Steel plate, sheet and strip —

Part 2: Specification for stainless and heat-resisting steel plate, sheet and strip

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Committees responsible for this British Standard

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- Cold Rolled Sections Association
- British Internal Combustion Engine Manufacturers' Association
- British Railways Board
- British Steel Industry
- Institution of Production Engineers
- Society of Motor Manufacturers and Traders Limited

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- Institute of Sheet Metal Engineering
- National Association of Steel Stockholders
- Process Plant Association
- Stainless Steel Fabricators' Association of GB

This British Standard, having been prepared under the direction of the Iron and Steel Standards Committee, was published under the authority of the Board of BSI and comes into effect on 31 May 1983

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Foreword

This Part of BS 1449, prepared under the direction of the Iron and Steel Standards Committee, is a revision of BS 1449-2:1975 which is withdrawn. It constitutes a general updating of the requirements for stainless and heat-resisting steels, in line with moves towards international harmonization of these materials.

Included for the first time are definitions, based on those agreed internationally, for the terms used and, additionally, a clause for the identification and marking of the material. The tabular presentation of the specific requirements for particular steel grades has been simplified.

The other Part of this standard is:

— *Part 1: Specification for carbon steel plate, sheet and strip.*

For corrosion and heat-resisting stainless steel plates for fired and unfired pressure vessels, reference should be made to BS 1501-3, and for stainless steel strip for springs, reference should be made to BS 5770-4.

This Part of BS 1449 has been amended to take into account the publication of the following European Standards:

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

EN 10048, *Hot rolled narrow steel strip — Tolerances on dimensions and shape.*

EN 10051, *Continuously hot-rolled uncoated plate, sheet and strip of non-alloy and alloy steels — Tolerances on dimensions and shape.*

EN 10258, *Cold-rolled stainless steel and narrow strip and cut lengths — Tolerances on dimensions and shape.*

EN 10259, *Cold-rolled stainless steel wide strip and plate/sheet — Tolerances on dimensions and shape.*

As further European Standards are produced this British Standard will eventually be withdrawn.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Section 1. General requirements

1.1 Scope

This Part of BS 1449 specifies material and dimensional requirements for hot rolled and cold rolled flat heat-resisting steel products in coil and cut length form. It also specifies dimensional requirements for hot rolled and cold rolled flat stainless steel products in coil and cut length form. It applies to plate from 3 mm up to 100 mm thick, wide strip, sheet from 0.30 mm to less than 3 mm thick, and narrow strip from 0.050 mm to less than 3.00 mm thick.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

1.2 Definitions

For the purposes of this British Standard the following definitions apply.

1.2.1

flat products

products of almost rectangular cross section with a width much greater than the thickness

1.2.2

hot rolled flat products

flat products produced by hot rolling

NOTE The very light cold rolling pass (sometimes called a skin pass, pinch pass or dressing pass), generally resulting in a reduction in thickness of less than 5 %, that is given to certain hot rolled flat products does not alter their classification as hot rolled finished products.

1.2.3

cold rolled flat products

flat products that have undergone a reduction in thickness of at least 25 % by cold rolling

NOTE A cold rolled flat product is normally annealed or softened following cold rolling, and subsequently may be skin passed or pinch passed.

1.2.4

temper rolled finished flat product

a cold rolled flat product to which, after annealing or softening, a final cold rolling reduction is applied in which the thickness is reduced by a controlled amount to achieve specified hardness or strength properties higher than those of the annealed or softened material. It is sometimes referred to as hard cold rolled

1.2.5

plate

a flat rolled product, the edges of which are allowed to deform freely during rolling, 3 mm to 100 mm thick, generally supplied in square or rectangular flat form but also in any other shape according to a design sketch. Plate may also be supplied in coil form or may be cut from the parent rolled product obtained by rolling of the ingot or semi-finished product

1.2.6

sheet

a flat rolled product, the edges of which are allowed to deform freely during rolling, less than 3 mm thick, generally supplied in square or rectangular flat form, but also in any other shape according to a design sketch

1.2.7 strip

A flat rolled product which immediately after the final rolling pass is wound into regular superimposed laps so as to form a coil with almost flat sides. Strip may be subsequently cut and supplied as sheet or cut lengths, or as coils of any narrower width.

1.2.7.1

wide strip

strip rolled at a width equal to or greater than 600 mm. When supplied in coil form it is sometimes referred to as sheet coil

1.2.7.1

narrow strip

strip rolled at a width less than 600 mm

1.3 General

The material shall comply with the relevant general requirements of this section, the relevant specific requirements of section 2 and the relevant tolerances on dimensions and permissible deviations in shape in section 3.

1.4 Information to be supplied by the purchaser¹⁾

1.4.1 General. To assist the manufacturer in supplying the correct form of product and grade of material, etc., the following information shall be given in the enquiry and order:

- a) the number of this British Standard and grade of steel, e.g. BS 1449-2, steel 310S24;
- b) the form of product required, i.e. plate, sheet, or strip;

¹⁾ Information regarding manipulation, finishing or ultimate service conditions to which the material will be subjected is of assistance to the manufacturer in order that the most suitable material is supplied.