

Specification for

**Weldable structural
steels —
Hot finished structural
hollow sections in
weather resistant steels**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Iron and Steel Standards Policy Committee (ISM/-) to Technical Committee ISM/12, upon which the following bodies were represented:

- BEAMA Ltd.
- British Constructional Steelwork Association Ltd.
- British Railways Board
- British Steel Industry
- Department of Transport
- Institution of Structural Engineers
- Lloyd’s Register of Shipping
- National Association of Steel Stockholders
- Railway Industry Association of Great Britain
- Society of Motor Manufacturers and Traders Ltd.
- Steel Construction Institute
- Welding Institute

This British Standard, having been prepared under the direction of the Iron and Steel Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 June 1994

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The following BSI references relate to the work on this standard:
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Foreword

This British Standard has been prepared under the direction of the Iron and Steel Standards Policy Committee and is identical to the element of BS 4360:1990 covering hot finished structural hollow sections in weather resistant steels.

This standard, together with BS 7613, BS EN 10113-1 to BS EN 10113-3, BS EN 10155 and BS EN 10210-1, supersedes BS 4360:1990, which is withdrawn. BS 7613 and BS EN 10210-1 are published simultaneously with this standard.

Annex A gives a comparison between grades and designations in this standard and those in BS 4360:1990.

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.

1 Scope

This British Standard specifies requirements for weldable weather resistant steels for general structural and engineering purposes in the form of structural steel hollow sections conforming to BS 4848-2:1991. However, in the case of hollow sections formed from plate and with the seams metal arc welded, this standard covers only the requirements for the plate material.

The products are equally suitable for bolted and riveted structures.

This standard applies to material supplied ex-mill or from merchant's stock (see clause 13).

2 References

2.1 Normative references

This standard incorporates, by reference, provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this standard only when incorporated in it by updating or revision.

2.2 Informative references

This standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this British Standard, the definitions given in BS EN 10079:1993 apply together with the following.

3.1

parent product

the product rolled from one piece of steel

3.2

manufacturer

the manufacturer of the steel products

3.3

supplier

the manufacturer for material supplied ex-mill, the merchant for material supplied from a merchant's stock (see clause 1)

3.4

purchaser

the purchaser or his representative

4 General

The hollow sections shall conform to the general requirements of this standard and to the specific requirements applicable to the grade concerned. Where any of the options given in Annex B are called up at the time of the enquiry and order, the hollow sections shall, in addition, conform to the requirements of any such options.

NOTE Table 1 gives permitted deviations in product analysis, Table 2 gives chemical composition and Table 3 gives mechanical properties.

5 Information to be supplied by the purchaser

5.1 General

The following information shall be supplied by the purchaser at the time of enquiry and order:

- a) details of the product form, dimensions and quantity;
- b) the grade of steel (see Table 2).

5.2 Options

A number of options are specified in Annex B. In the event that the purchaser does not indicate his wish to implement any of these options and specify his requirements at the time of the enquiry and order, the supplier shall supply in accordance with the basic specification.

6 Steelmaking process

6.1 Process

The steel shall be made by any process except the Bessemer process.

See also option B.1.

6.2 Rimming steel

Rimming steel shall not be supplied.

7 Supply condition

The material shall be delivered in the supply condition given in Table 2. The mechanical properties given in Table 3 refer only to material in the condition specified in Table 2. Where the supply condition is specified as rolled or hot finished, it is permissible for the manufacturer to normalize the material provided the specified properties are obtained after normalizing.

NOTE Purchasers who intend to re-heat any of the steels detailed in this standard over and above those levels implicit in preheating and/or welding in accordance with BS 5135 are advised to discuss the application and proposed re-heat treatment of the steel with the manufacturer.