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BRITISH STANDARD 265 : 1963

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SPECIFICATION FOR

COLD ROLLED BRASS SHEET, STRIP AND FOIL

COMMON BRASS

BRITISH STANDARDS INSTITUTION

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COLD ROLLED BRASS SHEET, STRIP AND FOIL

COMMON BRASS

B.S. 265 : 1963

Price 5/- net

BRITISH STANDARDS INSTITUTION

INCORPORATED BY ROYAL CHARTER

BRITISH STANDARDS HOUSE, 2 PARK ST., LONDON, W.1

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THIS BRITISH STANDARD, having been approved by the Non-ferrous Metals Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 14 March, 1963.

First published, October, 1926.
First revision, December, 1928.
Second revision, November, 1936.
Third revision, March, 1963.

The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 4000, indexed and cross-indexed for reference, together with an abstract of each standard, will be found in the Institution's Yearbook, price 15s.

This standard makes reference to the following British Standards:

B.S. 18. Tensile testing of metals.
B.S. 427. Vickers hardness test. Part 1. Testing of metals.
B.S. 485. Tests on thin metal sheet and strip (not exceeding 0·128 in (10 S.W.G.) in thickness).
B.S. 1420. Glossary of terms applicable to wrought products in copper, zinc, brass, and other copper alloys.
B.S. 1499. Sampling non-ferrous metals.
B.S. 1748. Methods for the analysis of copper alloys.
B.S. 1957. Presentation of numerical values (fineness of expression; rounding of numbers).

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following B.S.I. references relate to the work on this standard:
Committee reference NFE/15.

CONTENTS

CO-OPERATING ORGANIZATIONS

The Non-ferrous Metals Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

Admiralty
Aluminium Federation
Association of Bronze and Brass Founders
Association of Consulting Engineers, Incorporated
British Bronze and Brass Ingot Manufacturers' Association
*British Electrical and Allied Manufacturers' Association
*British Non-ferrous Metals Federation
*British Non-ferrous Metals Research Association
*Cable Makers' Association
*Copper Development Association
Crown Agents for Overseas Governments and Administrations
*High Commission of India
High Conductivity Copper Association
Institute of British Foundrymen
Institute of Metals
Institution of Mechanical Engineers (Automobile Division)
Institution of Mining and Metallurgy
Institution of Structural Engineers
Lead Development Association
Lead Sheet and Pipe Manufacturers' Federation
Light Metal Founders' Association
London Metal Exchange
Magnesium Industry Council
*Ministry of Aviation
Ministry of Transport
National Brassfoundry Association
*Non-ferrous metal stockists
*Post Office
Royal Institute of British Architects
Society of British Aircraft Constructors
*Society of Motor Manufacturers and Traders Ltd.
Tin Research Institute
*War Office
Zinc Development Association
Individual manufacturers

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

British Clock and Watch Manufacturers' Association
Electronic Engineering Association
Institute of Sheet Metal Engineering
National Physical Laboratory (D.S.I.R.)
Spring Manufacturers' Research Association
Telephone Manufacturers Technical Development Committee
Individual manufacturers

BRITISH STANDARD SPECIFICATION FOR

COLD ROLLED BRASS SHEET, STRIP AND FOIL

Common Brass

FOREWORD

This British Standard, which was first issued in 1926, is one of a series of standards for copper and copper alloy sheet, strip and foil, the preparation of which was authorized by the Non-Ferrous Metals Industry Standards Committee.

In any specification for rolled brass, the main points for consideration are: (*a*) Relative proportions of the constituent elements, copper and zinc; (*b*) Impurities; (*c*) Possible intentional addition of elements other than copper and zinc to effect particular and desired results; (*d*) Temper; (*e*) Finish, and (*f*) Accuracy of dimensions. Under each heading wide variations are possible and the tests which may be applied must be varied accordingly. Separate British Standard specifications were issued in 1936 for the three most important alloys, showing for two of them (B.S. 265 and 266) five different tempers, and for the third (B.S. 267) the one temper which was usual; three not so widely used alloys were included in one composite specification (B.S. 711, 712, 713, the B.S. number denoting the specific composition) with three tempers for each alloy. The specifications, therefore, covered a considerable range defining what was general good practice, and permitting selection of the particular passages to be applied to a particular product. Wherever anything closer or more individualised was required, it was suggested that these specifications be used as models; appropriate or appropriately modified clauses, could, by mutual agreement of manufacturer and purchaser, be drawn from those provided. In these ways all the necessary exactitude of specification suitable for so widely varying a product was obtained, without the confusion of many unrelated specifications.

Since that date additional British Standards for brass sheet and strip have been issued and more recently all standards for copper and copper alloy sheet, strip and foil have been reviewed and their requirements have been included in B.S. 2870, 'Schedule of rolled copper and copper alloys–sheet strip, and foil'. In certain cases, e.g. B.S. 267, the range of tempers has been extended and amendments have been made to limits of chemical composition and mechanical properties and for all materials tolerances have been amended. For most materials the upper limit of thickness is now 0·374 inch in line with the definitions of sheet and strip to be included in the revision of B.S. 1420, 'Glossary of terms applicable to wrought products in copper, zinc, brass and other copper alloys' now in course of preparation.

In the present revision, B.S. 265 has been redrafted in line with B.S. 2870; in particular the tolerances have been amended and the wording and general arrangement of clauses has been modified so that these are now identical with the requirements included in the schedule for the alloy covered. In addition the symbols used to designate the alloys and their conditions in the schedule, have been introduced into these standards. The suffix letters used to indicate the condition in which the materials are available are as follows:

O Material in the annealed condition.

¼H, ½H, H, EH — The various harder tempers produced by cold rolling. For certain of the materials these tempers may be produced by partial annealing.

SH, ESH — Spring hard tempers produced by cold rolling of thinner material.

NOTE. Where metric equivalents are stated the figures in British units are to be regarded as the standard. The metric conversions are approximate. More accurate conversions should be based on the tables in B.S. 350, ' Conversion factors and tables '.

SPECIFICATION

SCOPE

1. This British Standard specifies requirements for rolled brass sheet, strip and foil for general purposes in thicknesses up to and including 0·374 in (9·50 mm) in common brass designated CZ108.

SECTION ONE : GENERAL CLAUSES

GENERAL

2. The sheet, strip and foil shall comply with the general requirements set out in the following clauses and with the specific requirements given in Section Two.

DEFINITIONS*

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

Sheet. Flat material of exact length, over 0·006 inch up to and including 0·374 inch thick and over 18 inches wide.

Strip. Material over 0·006 inch thick, up to and including 0·374 inch thick, of any width, and generally not cut to length. Usually in coil, but may be flat or folded.

Foil. A flat product in thicknesses up to and including 0·006 inch usually in coil.

FREEDOM FROM DEFECTS

4. The material shall be clean, smooth, and free from harmful defects.

DIMENSIONS AND TOLERANCES

5. *a. Thickness, width and length.* The thickness, width and length shall be as ordered within the tolerances specified in the following tables:

Table 1. Tolerances on thickness of cold rolled sheet, strip and foil.

Table 2. Tolerances on width of rolled sheet, strip and foil (rotary sheared).

Table 3. Tolerances on length of rolled sheet and strip ordered to exact length cut from rotary sheared coil.

Table 4. Tolerances on width and length of rolled sheet and strip (guillotine sheared).

If sizes are required for which tolerances are not given in these tables, the tolerances shall be agreed between the supplier and the purchaser.

* Extracted from draft revision of B.S. 1420, ' Glossary of terms applicable to wrought products in copper, zinc, brass and other copper alloys '.