

Please be aware that this PDF has been created from the original hardcopy document, which might not be in good condition and so the PDF might reflect this.

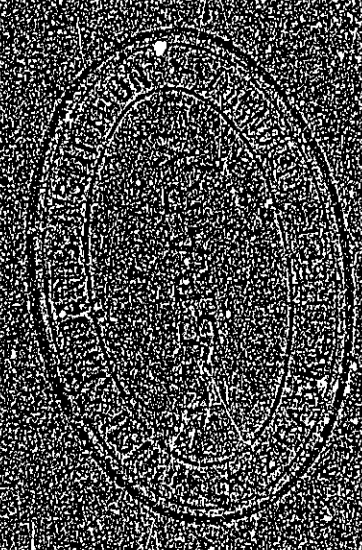
1914-15 by Royal Society

BRITISH STANDARD

SPECIFICATION FOR

FILLER METALS

FOR BRAZING



BRITISH STANDARDS INSTITUTION

SPECIFICATION FOR
FILLER METALS
FOR BRAZING

B. S. 1845 : 1966

Price 5/- net

BRITISH STANDARDS INSTITUTION

INCORPORATED BY ROYAL CHARTER

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

TELEGRAMS: STANDARDS LONDON W1 TELEPHONE: MAYFAIR 9000

THIS BRITISH STANDARD, having been approved by the Welding Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 9th December, 1966.

First published, February, 1952.
First revision, December, 1966.

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, fully indexed and with a note of the contents of each, will be found in the British Standards Yearbook, price 15s. The B.S. Yearbook may be consulted in many public libraries and similar institutions.

This standard makes reference to the following British Standards:

- B.S. 1453. Filler rods and wires for gas welding.
- B.S. 1475. Wrought aluminium and aluminium alloys for general engineering purposes. Wire.
- B.S. 1723. Brazing.
- B.S. 2870. Schedule of rolled copper and copper alloys. Sheet, strip and foil.
- B.S. 2873. Schedule of copper and copper alloys. Wire.

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 WEE/20 Draft for comment D64/8992

CONTENTS

Co-operating organizations	Page
Foreword	4
	6

SPECIFICATION

1. Scope	6
2. Quality of material	6
3. Form of material	7
4. Certificate of compliance	7

TABLES

1. Group AL: Aluminium brazing alloys	8
2. Group AG: Silver brazing alloys	9
3. Group CP: Copper-phosphorus brazing alloys	10
4. Group CU: Copper brazing metal	11
5. Group CZ: Brazing brasses	12
6. Group NI: Nickel-base brazing alloys	13
7. Group PD: Palladium-bearing brazing alloys	14
8. Group AU: Gold-bearing brazing alloys	15

CO-OPERATING ORGANIZATIONS

The Welding Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government Departments and scientific and industrial organizations:

- *Aluminium Federation
- *Associated Offices Technical Committee
- Association of Consulting Engineers
- Board of Trade
- *British Acetylene Association
- British Constructional Steelwork Association
- *British Electrical and Allied Manufacturers' Association
- *British Iron and Steel Federation
- *British Railways Board
- *British Welding Research Association
- Crown Agents for Oversea Governments and Administrations
- *Institute of Welding
- Institution of Civil Engineers
- Institution of Electrical Engineers
- *Institution of Mechanical Engineers
- *Institution of Production Engineers
- Institution of Structural Engineers
- *Lloyd's Register of Shipping
- London Transport Board
- *Ministry of Defence, Army Department
- Ministry of Defence, Navy Department
- Ministry of Labour, H.M. Factory Inspectorate
- Ministry of Technology—National Engineering Laboratory
- Shipbuilding Employers' Federation
- Society of British Aerospace Companies Limited

The Government department 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 Mechanical Engineering Federation
- British Non-ferrous Metals Federation

- Copper Development Association
- Electricity Council, the Generating Board and the Area Boards in England and Wales
- Institute of Iron and Steel Wire Manufacturers
- Magnesium Industry Council
- Oil Companies Materials Association
- Society of Motor Manufacturers and Traders Ltd.
- Individual firms

BRITISH STANDARD SPECIFICATION FOR FILLER METALS FOR BRAZING

FOREWORD

This British Standard has been prepared under the authority of the Welding Industry Standards Committee and contains in revised form what was previously covered by the separate standards B.S. 1845, 'Filler alloys for brazing (silver solders and brazing solders)', and B.S. 1942, 'Aluminium filler alloys for brazing'. With the publication in 1963 of a new edition of B.S. 1723, 'Brazing', the opportunity has been taken of preparing a single complementary standard for filler metals, at the same time extending the range of materials specified beyond what was contained in B.S. 1845 and B.S. 1942. The number B.S. 1845 has been retained for this standard and B.S. 1942 has been withdrawn.

Reference should be made to B.S. 1723 for details regarding the use of the various metals specified in this standard, but if in doubt, the advice of the supplier should be sought as to the suitability of a particular filler metal for the material being brazed.

SPECIFICATION

1. Scope

1.1 This British Standard specifies a range of filler metals used for brazing. The metals are grouped under the following headings:

- AL Aluminium brazing alloys
- AG Silver brazing alloys
- CP Copper-phosphorus brazing alloys
- CU Copper brazing metal
- CZ Brazing brasses
- NI Nickel-base brazing alloys
- PD Palladium-bearing brazing alloys
- AU Gold-bearing brazing alloys

2. Quality of material

2.1 The filler metal shall be in accordance with one of the compositions shown in the tables, as specified by the purchaser.

Filler metals shall be free from any inclusions and, except for pastes and powders, surface scale likely to impair the flow of the filler metal.

NOTE. The melting ranges of the filler metals given in the last column of the tables are for general information only.

3. Form of material

3.1 As many filler metals are available in more than one specific form, the form in which the material is required shall be specified by the purchaser.

4. Certificate of compliance

4.1 The supplier shall certify that the filler metals comply with the requirements of this standard.

NOTE. The British Standards Institution is the owner of a registered certification trade mark. This is shown below, enclosed in the words 'Approved to British Standard'. This mark can be used only by manufacturers licensed under the certification mark scheme operated by the BSI. The presence of this mark on or in relation to a product is an assurance that the goods have been produced to comply with the requirements of the British Standard under a system of supervision, control and testing operated during manufacture and including periodical inspection at the manufacturer's works in accordance with the certification mark scheme of the BSI.

Further particulars of the terms of licence may be obtained from the Director, British Standards Institution, 2 Park Street, London, W.1.

