International Standard

ISO 17672

Brazing — Filler metals

Brasage fort — Métaux d'apport

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 13, *Brazing materials and processes,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 17672:2016), which has been technically revised.

The main changes are as follows:

— in Clause 6, the spatter test was added;

— in 8.2.2, a NOTE on foils with a width of less than 3 mm was added;

— in Table 6, four new silver brazing filler metals were added;

— in Table 7, the range of Si was changed to 0,01 up to 0,25 (mass fraction %) if intentionally added;

— in Table 11, two new Ni-Cr-P-Si alloys were added;

— in Table A.1, the codes were updated and corresponding GB codes were added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. Official interpretations of ISO/TC 44 documents, where they exist, are available from this page: https://committee.iso.org/sites/tc44/home/interpretation.html.

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Brazing — Filler metals

1 Scope

This document specifies the compositional ranges of a series of filler metals used for brazing. The filler metals are divided into seven classes, related to their composition but not necessarily to the major element present.

NOTE 1 For the major element(s) present, see Annex A.

In the case of composite products, such as flux-coated rods, pastes or plastics tapes, this document covers only the filler metal that forms parts of such products. The melting temperatures given in the tables are only approximate, as they necessarily vary within the compositional range of the filler metal. Therefore, they are given only for information. Technical delivery conditions are given for brazing filler metals and products containing brazing filler metals with other constituents such as flux and/or binders.

NOTE 2 For some applications, such as precious metal jewellery, aerospace and dental, filler metals other than those included in this document are often used. These are covered by other International Standards to which reference can be made.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 80000-1:2022, *Quantities and units — Part 1: General*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Composition

The filler metal shall have a composition in accordance with Tables 5 to 13 for the particular type, except as modified for special vacuum requirements (see Clause 4 and Table 1).

If the values for an element range from 0 (—) to a defined value, the element may be, but does not have to be, in that brazing filler metal.

For the purposes of determining compliance with composition limits, any value obtained from the analysis shall be rounded to the same number of decimal places as used in this document in expressing the specified limit. The following rules shall be used for rounding:

a) When the figure immediately after the last figure to be retained is less than five, then the last figure to be retained shall be kept unchanged.

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