

---

---

## Brazing — Filler metals

*Brasage fort — Métaux d'apport*



This document is a preview generated by EBS



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Composition</b> .....	<b>1</b>
<b>4 Special vacuum requirement</b> .....	<b>2</b>
<b>5 Chemical analysis</b> .....	<b>2</b>
<b>6 Designation</b> .....	<b>3</b>
<b>7 Technical delivery conditions</b> .....	<b>3</b>
7.1 Types of product.....	3
7.2 Dimensions.....	3
7.2.1 General.....	3
7.2.2 Foils.....	3
7.2.3 Rods.....	4
7.2.4 Wires.....	5
7.3 Condition.....	5
7.4 Marking.....	5
7.5 Packaging.....	5
7.6 Product certificates.....	5
<b>8 Metal hazards</b> .....	<b>5</b>
<b>Annex A (normative) Codification</b> .....	<b>16</b>
<b>Bibliography</b> .....	<b>21</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 documents 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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 44, *Welding and allied processes*.

This second edition cancels and replaces the first edition (ISO 17672:2010), which has been technically revised.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44 via your national standards body. A complete listing of these bodies can be found at [www.iso.org](http://www.iso.org).

# Brazing — Filler metals

## 1 Scope

This International Standard 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 International Standard 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, e.g. precious metal jewellery, aerospace and dental, filler metals other than those included in this International Standard are often used and these are covered by other International Standards to which reference can be made.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3677, *Filler metal for soft soldering and braze welding — Designation*

ISO 80000-1:2009, *Quantities and units — Part 1: General*

## 3 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 International Standard 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.
- b) When the figure immediately after the last figure to be retained is either
  - 1) greater than five, or
  - 2) equal to five and followed by at least one figure other than zero,the last figure to be retained shall be increased by one.
- c) When the figure immediately after the last figure to be retained is equal to five, and followed by zeros only, then the last figure to be retained shall be left unchanged if even, and increased by one