



National Standards Authority of Ireland

IRISH STANDARD

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## BRAZING - FILLER METALS

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EUROPÄISCHE NORM

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English version

## Brazing - Filler metals

Brasage fort - Métaux d'apport

Hartlöten - Lötzusätze

This European Standard was approved by CEN on 16 April 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## **Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1999, and conflicting national standards shall be withdrawn at the latest by November 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

## 1 Scope

This European Standard specifies the compositions of a range of filler metals used for brazing. The filler metals have been divided into eight classes, related to their composition but not necessarily to the major element present, see annex A. In the case of composite products such as flux-coated rods, pastes or plastics tapes, the standard only covers the filler metal that forms part of such products. Although the melting range is given in the tables, it will necessarily vary within the compositional range of the filler metal and can only be regarded as approximate. Therefore, it does not form part of the specification and is 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: For some applications, e.g. precious metal jewellery, aerospace and dental, filler metals other than those included in this standard will often be used and these are covered by other standards to which reference should be made.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN ISO 3677:1995 Filler metal for soft soldering, brazing and braze welding - Designation (ISO 3677:1992)

## 3 Composition

The filler metal shall have a composition in accordance with tables 2 to 8 for the particular type, except as modified for special vacuum requirements (see clause 4 and table 1).

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 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;

then the last figure to be retained shall be increased by one.

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