



BSI Standards Publication

Brazing — Imperfections in brazed joints

National foreword

This British Standard is the UK implementation of EN ISO 18279:2023. It is identical to ISO 18279:2023. It supersedes BS EN ISO 18279:2003, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee WEE/19, Brazing and braze welding.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

Brazing - Imperfections in brazed joints (ISO 18279:2023)

Brasage fort - Défauts dans les assemblages réalisés
par brasage fort (ISO 18279:2023)

Hartlöten - Unregelmäßigkeiten in hartgelöteten
Verbindungen (ISO 18279:2023)

This European Standard was approved by CEN on 10 February 2023.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

This document (EN ISO 18279:2023) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding and allied processes" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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This document supersedes EN ISO 18279:2003.

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Endorsement notice

The text of ISO 18279:2023 has been approved by CEN as EN ISO 18279:2023 without any modification.

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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 second edition cancels and replaces the first edition (ISO 18279:2003), which has been technically revised.

The main changes are as follows:

- An additional quality level for brazed joint imperfections has been added in [Annex B](#) in order to reflect the technical progress that has been achieved over the past decade as well as the need for increased requirements regarding reliability of brazed joints for critical applications. Quality levels have been reevaluated.

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>.

Introduction

Brazed joints usually contain imperfections of various types, some of which are detrimental in almost every case while others can be detrimental or harmless, depending entirely on the service requirements of the joint in question. Therefore, it is often necessary to classify the imperfections in a brazed joint and then try to assess the significance of their effects on the behaviour of the joint in service. The classification is relatively easy and [Table 1](#) describes the imperfections that most commonly occur. The assessment of significance is not easy (see also [Annex A](#)).

For welded joints, there has been extensive work carried out for many years on the significance of imperfections in service; however, such work has not been carried out on brazed joints. Moreover, the work on welded joints is only rarely relevant to brazed joints, mainly because of differences in geometry and stressing. Therefore, this document cannot give definitive quality levels for brazed joints. These can only be produced as experience is gained from industrial applications. However, [Annex B](#) gives some suggestions for quality levels for general applications, which can be of help where detailed information is not available. The use of quality levels can only be successful if the imperfections that are relevant to the application of the brazed joint are determined.

