

**Resistance welding - Vocabulary - Part 1: Spot,
projection and seam welding (ISO 17677-1:2021)**

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EUROPEAN STANDARD

EN ISO 17677-1

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EUROPÄISCHE NORM

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English Version

Resistance welding - Vocabulary - Part 1: Spot, projection and seam welding (ISO 17677-1:2021)

Soudage par résistance - Vocabulaire - Partie 1:
Soudage par points, par bossages et à la molette (ISO
17677-1:2021)

Widerstandsschweißen - Begriffe - Teil 1: Punkt-,
Buckel- und Rollennahtschweißen (ISO 17677-1:2021)

This European Standard was approved by CEN on 28 February 2021.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 17677-1:2021) 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of an identical text or by endorsement, at the latest by September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 17677-1:2019.

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Endorsement notice

The text of ISO 17677-1:2021 has been approved by CEN as EN ISO 17677-1:2021 without any modification.

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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).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*, 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 17677-1:2019), of which it constitutes a minor revision. The main changes compared to the previous edition are as follows:

- the terms and definitions of ISO 14329 have been implemented;
- editorial changes have been made.

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>.

Resistance welding — Vocabulary —

Part 1: Spot, projection and seam welding

1 Scope

This document establishes a vocabulary of terms and definitions for resistance spot welding, projection welding and seam welding.

NOTE In addition to terms used in English and French, two of the three official ISO languages, this document gives the equivalent terms in German; these are published under the responsibility of the member body for Germany (DIN). However, only the terms and definitions given in the official languages can be considered as ISO terms and definitions.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 Welding and testing procedures

3.1.1

chisel test

test in which a chisel is driven between the sheets near to adjacent welds until either fracture occurs or until the metal near the weld yields or bends

3.1.2

cross tension test

tensile test of a resistance welded specimen to determine the mechanical properties and failure mode of the weld

3.1.3

cross-wire welding

projection welding ([3.1.11](#)) of crossed wires or rods

3.1.4

direct welding

resistance welding secondary circuit variant in which welding current and *electrode force* ([3.3.5](#)) are applied to the workpieces by directly opposed *electrodes* ([3.2.1](#)) and only one weld is made by one welding operation

Note 1 to entry: See [Figure 12](#) for typical arrangements.