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Welding - Measurement of preheating temperature,
interpass temperature and preheat maintenance
temperature (ISO 13916:2025)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 13916:2025 sisaldab Euroopa standardi EN ISO 13916:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.09.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 13916:2025 consists of the English text of the European standard EN ISO 13916:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 03.09.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EUROPEAN STANDARD

EN ISO 13916

NORME EUROPÉENNE

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English Version

Welding - Measurement of preheating temperature, interpass temperature and preheat maintenance temperature (ISO 13916:2025)

Soudage - Mesurage de la température de
préchauffage, de la température entre passes et de la
température de maintien du préchauffage (ISO
13916:2025)

Schweißen - Messung der Vorwärm-, Zwischenlagen-
und Haltetemperatur (ISO 13916:2025)

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

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

European foreword

This document (EN ISO 13916:2025) 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 AFNOR.

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of an identical text or by endorsement, at the latest by March 2026, and conflicting national standards shall be withdrawn at the latest by March 2026.

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 13916:2017.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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Endorsement notice

The text of ISO 13916:2025 has been approved by CEN as EN ISO 13916:2025 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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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 10, *Quality management in the field of welding*, 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 13916:2017), which has been technically revised.

The main changes are as follows:

- [subclause 4.1](#), addition of requirements regarding the point of measurement of the temperature, for joint thicknesses not exceeding 50 mm, if the source of heat is localized outside of the groove of the weld.

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Welding — Measurement of preheating temperature, interpass temperature and preheat maintenance temperature

1 Scope

This document specifies requirements for the measurement of preheating temperature, interpass temperature and preheat maintenance temperature for fusion welding. This document can also be applied as appropriate in the case of other welding processes. This document does not apply to the measurement of post weld heat treatment temperatures.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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/>

3.1 preheating temperature

T_p
temperature of the workpiece in the weld zone immediately prior to any welding operation

Note 1 to entry: It is normally expressed as a minimum and is usually equal to the minimum interpass temperature.

3.2 interpass temperature

T_i
temperature in a multi-run weld and adjacent parent metal immediately prior to the application of the next run

Note 1 to entry: It is normally expressed as a maximum temperature.

3.3 preheat maintenance temperature

T_m
minimum temperature in the weld zone which is to be maintained if welding is interrupted

4 Requirements

4.1 Point of measurement

For a workpiece thickness t not exceeding 50 mm in the weld, the temperature measurement shall normally be made on the surface of the workpiece facing the welder. If the heat source is centred on the groove, the temperature measurement shall normally be at a distance of $A = 4 \times t$, but not more than 50 mm, from the longitudinal edge of the groove (see [Figure 1](#)). If the source of heat is localized outside of the groove (e.g.