BS EN 13100-3:2026

BSI Standards Publication

Non-destructive testing of welded joints in thermoplastics semifinished products

Part 3: Ultrasonic testing



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National foreword

This British Standard is the UK implementation of EN 13100-3:2026. It supersedes BS EN 13100-3:2004, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee WEE/3, Welding of thermoplastic moulded components.

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

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English Version

Non-destructive testing of welded joints in thermoplastics semifinished products - Part 3: Ultrasonic testing

Contrôle non destructif des assemblages soudés sur produits semi-finis en thermoplastiques - Partie 3 : Contrôle par ultrasons

Zerstörungsfreie Prüfung von Schweißverbindungen an Halbzeugen aus thermoplastischen Kunststoffen - Teil 3: Ultraschallprüfung

This European Standard was approved by CEN on 19 July 2026.

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Contents

Page

European foreword ... 4
1 Scope ... 5
2 Normative references ... 5
3 Terms and definitions ... 5
4 Symbols and abbreviated terms ... 5
5 General ... 6
6 Information required prior to examination ... 6
6.1 Examination procedure ... 6
6.2 Information required by the operator ... 6
6.3 Written examination procedure ... 6
7 Requirements for personnel and equipment ... 7
7.1 Personnel qualifications ... 7
7.2 Equipment ... 7
7.3 Probe parameters ... 7
7.3.1 Frequency ... 7
7.3.2 Angles of incidence ... 7
7.3.3 Focusing ... 7
7.3.4 Wedge material ... 7
7.3.5 Adoption of probes to curved scanning surfaces ... 7
8 Examination volume ... 8
9 Preparation of scanning surfaces ... 8
10 Range and sensitivity setting ... 9
10.1 General ... 9
10.2 Reference level ... 10
10.3 Evaluation levels ... 11
10.4 Transfer correction ... 11
10.5 Signal-to-noise ratio ... 12
11 Examination technique ... 12
11.1 Standard ultrasonic techniques ... 12
11.1.1 General ... 12
11.1.2 Normal incidence longitudinal (compression) wave examination ... 12
11.1.3 Angled longitudinal (compression) wave examination ... 13
11.1.4 Tandem examination ... 13
11.1.5 Time-of-flight diffraction (TOFD) examination ... 14
11.1.6 Creeping wave examination ... 14
11.2 Location of indications ... 15
11.3 Evaluation of indications ... 15
11.3.1 General ... 15
11.3.2 Maximum echo amplitude ... 15
11.3.3 Indication length ... 15
11.3.4 Indication height ... 15
11.3.5 Characterization of discontinuities ... 15

AVA Documents
Document Sharing Hub
Full document details: BS EN 13100-3:2026 Non-destructive testing of welded joints in thermoplastics semifinished products - Part 3: Ultrasonic testing

12 Examination report 15
12.1 General 15
12.2 Equipment 16
12.3 Technique 16
12.4 Results 16
Bibliography 18

Documents
Document Sharing Hub
Full document details: BS EN 13100-3:2026 Non-destructive testing of welded joints in thermoplastics semifinished products - Part 3: Ultrasonic testing

European foreword

This document (EN 13100-3:2026) has been prepared by Technical Committee CEN/TC 249 “Plastics”, the secretariat of which is held by SIS.

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 February 2027, and conflicting national standards shall be withdrawn at the latest by February 2027.

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 13100-3:2004.

EN 13100-3:2026 includes the following significant technical changes with respect to EN 13100-3:2004:

— the referenced standards have been updated, the figure showing the examination volume for electrofusion joints has been revised and it has been specified that the setting of range and sensitivity shall be carried out if the temperature of the joints being examined changes by more than 10 °C.

The EN 13100 series, under the general title *Non-destructive testing of welded joints in thermoplastics semi-finished products*, consists of the following parts:

— *Part 1: Visual examination*;

— *Part 2: X-ray radiographic testing*;

— *Part 3: Ultrasonic testing*;

— *Part 4: High voltage testing*.

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

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1 Scope

This document specifies methods for the manual ultrasonic examination of heated tool, electrofusion, extrusion and hot gas joints in plastics materials. It applies to joints in single wall pipes and plates. The range of thicknesses covered is from 10 mm to 100 mm.

This document does not specify acceptance levels of the indications.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1330-2, *Non destructive testing — Terminology — Part 2: Terms common to the non-destructive testing methods*

EN ISO 5577, *Non-destructive testing — Ultrasonic testing — Vocabulary (ISO 5577)*

EN ISO 9712, *Non-destructive testing — Qualification and certification of NDT personnel (ISO 9712)*

EN ISO 16811, *Non-destructive testing — Ultrasonic testing — Sensitivity and range setting (ISO 16811)*

EN ISO 16826, *Non-destructive testing — Ultrasonic testing — Testing for discontinuities perpendicular to the surface (ISO 16826)*

EN ISO 16828, *Non-destructive testing — Ultrasonic testing — Time-of-flight diffraction technique for detection and sizing of discontinuities (ISO 16828)*

EN ISO 22232-1, *Non-destructive testing — Characterization and verification of ultrasonic test equipment — Part 1: Instruments (ISO 22232-1)*

EN ISO 22232-2, *Non-destructive testing — Characterization and verification of ultrasonic test equipment — Part 2: Probes (ISO 22232-2)*

EN ISO 22232-3, *Non-destructive testing — Characterization and verification of ultrasonic test equipment — Part 3: Combined equipment (ISO 22232-3)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1330-2 and EN ISO 5577 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/

4 Symbols and abbreviated terms

For the purposes of this document, the following symbols and abbreviated terms apply:

t thickness of reference block (mm)
D diameter of the component (mm)
a dimension of the wedge in the direction of examination (mm)

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