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Testing of welded joints of thermoplastics
semi-finished products - Part 5: Macroscopic
examination

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 12814-5:2025 sisaldab Euroopa standardi EN 12814-5:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.12.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 12814-5:2025 consists of the English text of the European standard EN 12814-5:2025.</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 03.12.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Testing of welded joints of thermoplastics semi-finished products - Part 5: Macroscopic examination

Essai des assemblages soudés sur produits semi-finis
en thermoplastiques - Partie 5 : Examen
macroscopique

Prüfen von Schweißverbindungen aus
thermoplastischen Kunststoffen - Teil 5:
Makroskopische Untersuchung

This European Standard was approved by CEN on 19 October 2025.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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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 12814-5:2025) 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of an identical text or by endorsement, at the latest by June 2026, and conflicting national standards shall be withdrawn at the latest by June 2026.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 12814-5:2000.

EN 12814-5:2025 includes the following significant technical changes with respect to EN 12814-5:2000:

- there are no normative references;
- a bibliography has been introduced.

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 the cutting and preparation of test specimens and the conditions for performing the macroscopic examination of the test specimens.

The test is applicable to welded assemblies made from thermoplastics materials filled or unfilled, using the following processes:

- hot gas welding: round nozzle, high speed nozzle, wedge;
- extrusion welding;
- heated tool welding: butt, saddle, socket, wedge;
- electrofusion welding: socket, saddle.

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

macroscopic examination

examination of a test specimen by the naked eye, or under low magnification, with or without etching

4 Principle of the test

Macroscopic examination is used to reveal the macroscopic features of a welded joint, usually by the examination of transverse sections.

5 Purpose of the test

The purpose of macroscopic examination shall be to assess features as described in Table 1.

A list of weld imperfections and their reference numbers are given in EN 14728 [1].

The features to be examined are given in the corresponding quality level standard, for example EN 16296 [2].