



NSAI
Standards

Irish Standard
I.S. EN ISO 3459:2022

Plastic piping systems - Mechanical joints between fittings and pressure pipes - Test method for leaktightness under negative pressure (ISO 3459:2022)

I.S. EN ISO 3459:2022

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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National Foreword

I.S. EN ISO 3459:2022 is the adopted Irish version of the European Document EN ISO 3459:2022, Plastic piping systems - Mechanical joints between fittings and pressure pipes - Test method for leaktightness under negative pressure (ISO 3459:2022)

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EUROPEAN STANDARD

EN ISO 3459

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 3459:2015

English Version

Plastic piping systems - Mechanical joints between fittings and pressure pipes - Test method for leaktightness under negative pressure (ISO 3459:2022)

Systèmes de canalisations en matières plastiques -
Assemblages mécaniques entre raccords et tubes sous
pression - Méthode d'essai pour l'étanchéité sous
pression négative (ISO 3459:2022)

Kunststoff-Rohrleitungssysteme - Mechanische
Verbindungen zwischen Formstücken und
Druckrohren - Prüfung der Dichtheit bei Unterdruck
(ISO 3459:2022)

This European Standard was approved by CEN on 27 March 2022.

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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 foreword

This document (EN ISO 3459:2022) has been prepared by Technical Committee ISO/TC 138 "Plastics pipes, fittings and valves for the transport of fluids" in collaboration with Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems" the secretariat of which is held by NEN.

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 October 2022, and conflicting national standards shall be withdrawn at the latest by October 2022.

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 3459:2015.

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.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 3459:2022 has been approved by CEN as EN ISO 3459:2022 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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 5, *General properties of pipes, fittings and valves of plastic materials and their accessories — Test methods and basic specifications*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 155, *Plastics piping systems and ducting systems*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 3459:2015), which has been technically revised.

The main changes are as follows:

- references to diameters >63 mm have been deleted;
- a change in vacuum pressure that can be considered to be leaktight has been introduced.

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.

Plastic piping systems — Mechanical joints between fittings and pressure pipes — Test method for leaktightness under negative pressure

WARNING — Persons using this document should be familiar with normal laboratory practice, if applicable. The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This document specifies two methods of testing for checking the leaktightness of assembled joints between mechanical fittings and plastic pressure pipes with diameters up to and including 63 mm. The test applies regardless of the design and material of the fitting used for jointing plastics pipe.

This test method is not applicable to fusion-welded joints.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

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 <https://www.electropedia.org/>

4 Principle

Checking of the leaktightness of an assembled joint when submitted to external pressure greater than the pressure within the pipe.

For measurements where the external hydraulic pressure is greater than the atmospheric pressure within the pipe, procedure A shall be used.

For measurements with a vacuum inside the pipe segment and an atmospheric pressure outside the pipe, procedure B shall be used.

5 Test parameters and requirements

The test parameters of the standard which refers to this document shall be used and the requirements shall be fulfilled. If one or more parameters are not given in the referring standard, the ones given in [Annex A](#) shall apply.

The following test parameters should be given by the standard which refers to this document:

- a) test medium;

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