

Plastics piping systems for hot and cold water
installations - Crosslinked polyethylene (PE-X) - Part
1: General (ISO 15875-1:2025)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 15875-1:2025 sisaldab Euroopa standardi EN ISO 15875-1:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 29.10.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 15875-1:2025 consists of the English text of the European standard EN ISO 15875-1:2025.</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 29.10.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EUROPEAN STANDARD

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English Version

Plastics piping systems for hot and cold water installations
- Crosslinked polyethylene (PE-X) - Part 1: General (ISO
15875-1:2025)

Systèmes de canalisations en plastique pour les installations d'eau chaude et froide - Polyéthylène réticulé (PE-X) - Partie 1: Généralités (ISO 15875-1:2025)

Kunststoff-Rohrleitungssysteme für die Warm- und Kaltwasserinstallation- Vernetztes Polyethylen (PE-X)- Teil1: Allgemeines (ISO 15875-1:2025)

This European Standard was approved by CEN on 23 October 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 15875-1:2025) 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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.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 15875-1:2003, EN ISO 15875-1:2003/A1:2007.

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, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 15875-1:2025 has been approved by CEN as EN ISO 15875-1:2025 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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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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 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 2, *Plastics pipes and fittings for water supplies*, 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 second edition cancels and replaces the first edition (ISO 15875-1:2003), which has been technically revised. It also incorporates the Amendment ISO 15875-1:2003/Amd. 1:2007.

The main changes are as follows:

- the definition and description of the term piping system has been updated.

A list of all parts in the ISO 15875 series can be found on the ISO website.

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.

Introduction

The ISO 15875 series specifies the requirements for a piping system when pipes are made from crosslinked polyethylene (PE-X). The ISO 15875 series consists of ISO 15875-1, ISO 15875-2, ISO 15875-3 and ISO 15875-5 and covers the requirements and related test methods for all components used in the system (e. g. pipes and fittings). In addition, the ISO 15875 series includes requirements and related test methods to verify the performance and compatibility of the jointing of components.

The piping system is intended to be used for hot and cold water installations.

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by the ISO 15875 series:

- the ISO 15875 series provides no information concerning potential restrictions on the use of the product in any of the Member States of the EU or EFTA;

Requirements and test methods for material and components of the piping systems are specified in ISO 15875-2 and ISO 15875-3. Characteristics for fitness for purpose (mainly for joints) are covered in ISO 15875-5. ISO/TS 15875-7 gives guidance for the assessment of conformity.

This document specifies the general aspects of the plastics piping system.

This document is intended to be used only in conjunction with the other parts of the ISO 15875 series, which are applicable to PE-X pipes, fittings and their joints including joints with components made of other plastics and non-plastics materials intended to be used for hot and cold water installations.

NOTE Test results obtained from a specific piping system test (according ISO 15875-5) cannot be transferred to other combinations of pipes and fittings.

At the date of publication of this document, standards for piping systems of other plastics materials used for the same application include the following series of standards:

- ISO 15874,
- ISO 15875,
- ISO 15876,
- ISO 15877,
- ISO 21003, and
- ISO 22391.

Plastics piping systems for hot and cold water installations — Crosslinked polyethylene (PE-X) —

Part 1: General

1 Scope

This document specifies the general aspects of crosslinked polyethylene (PE-X) piping systems intended to be used for hot and cold water installations within buildings for the conveyance of water, whether or not intended for human consumption (domestic systems), and for heating systems, under design pressures and temperatures according to the class of application (see [Table 1](#)).

This document also specifies the basis for the test parameters for the test methods referred to in the ISO 15875 series.

This document covers a range of service conditions (application classes), design pressures and pipe dimension classes. The ISO 15875 series does not apply to values of design temperature (T_D), maximum temperature (T_{max}) and malfunction temperature (T_{mal}), as well as service times in excess of those defined in [Table 1](#).

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.

ISO 472, *Plastics — Vocabulary*

ISO 1043-1, *Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics*

ISO 15875-2, *Plastics piping systems for hot and cold water installations — Crosslinked polyethylene (PE-X) — Part 2: Pipes*

ISO 15875-3, *Plastics piping systems for hot and cold water installations — Crosslinked polyethylene (PE-X) — Part 3: Fittings*

ISO 15875-5, *Plastics piping system for hot and cold water installations — Crosslinked polyethylene (PE-X) — Part 5: Fitness for purpose of the system*

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 472, ISO 1043-1 and the following apply.

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/>