

Piping systems for rehabilitation of underground drains, sewers and water supply networks - Part 3: Unplasticized poly (vinyl chloride) (PVC-U) material (ISO 11300-3:2026)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 11300-3:2026 sisaldab Euroopa standardi EN ISO 11300-3:2026 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 11.02.2026.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 11300-3:2026 consists of the English text of the European standard EN ISO 11300-3:2026.</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 11.02.2026.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EN ISO 11300-3

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Piping systems for rehabilitation of underground drains, sewers and water supply networks - Part 3: Unplasticized poly (vinyl chloride) (PVC-U) material (ISO 11300-3:2026)

Systèmes de canalisations pour la réhabilitation des branchements, des collecteurs d'assainissement et des réseaux d'alimentation en eau enterrés - Partie 3: Matériau poly(chlorure de vinyle) non plastifié (PVC-U) (ISO 11300-3:2026)

Rohrleitungssysteme für die Sanierung von unterirdischen Entwässerungs-, Kanalisations- und Wasserversorgungsnetzen - Teil 3: Weichmacherfreies Poly(vinylchlorid) (PVC-U) (ISO 11300-3:2026)

This European Standard was approved by CEN on 1 February 2026.

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

European foreword

This document (EN ISO 11300-3:2026) 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 August 2026, and conflicting national standards shall be withdrawn at the latest by August 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 11296-1:2018 and EN ISO 11296-3:2018.

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Endorsement notice

The text of ISO 11300-3:2026 has been approved by CEN as EN ISO 11300-3:2026 without any modification.



**International
Standard**

ISO 11300-3

**Piping systems for rehabilitation
of underground drains, sewers and
water supply networks —**

**Part 3:
Unplasticized poly (vinyl chloride)
(PVC-U) material**

*Systèmes de canalisations pour la réhabilitation des
branchements, des collecteurs d'assainissement et des réseaux
d'alimentation en eau enterrés —*

Partie 3: Matériau poly(chlorure de vinyle) non plastifié (PVC-U)

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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).

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.

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 8, *Rehabilitation of pipeline systems*, 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 first edition of ISO 11300-3, along with ISO 11300-1, ISO 11300-2 and ISO/DIS 11300-4 (in preparation), cancels and replaces ISO 11296-1:2018 and ISO 11296-3:2018, which have been technically revised.

The main changes are as follows:

- for piping systems made from unplasticized poly (vinyl chloride) (PVC-U) material, this document replaces the related content, including requirements, of the documents listed above.

A list of all parts in the ISO 11300 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

This document is a part of a series of International Standards concerning piping systems of various materials used for the rehabilitation of existing pipelines in a specified application area:

- ISO 11300 series: Piping systems for rehabilitation of underground drains, sewers and water supply networks;
- ISO 11301 series: Piping systems for rehabilitation of underground gas supply networks.

The ISO 11300 series and the ISO 11301 series are subdivided into parts covering a specific material per piping system.

The ISO 11300 series is subdivided in four parts:

- *Part 1: Polyethylene (PE) material;*
- *Part 2: Thermoset composite materials;*
- *Part 3: PVC-U material (this document);*
- *Part 4: Thermoplastic composite materials.*

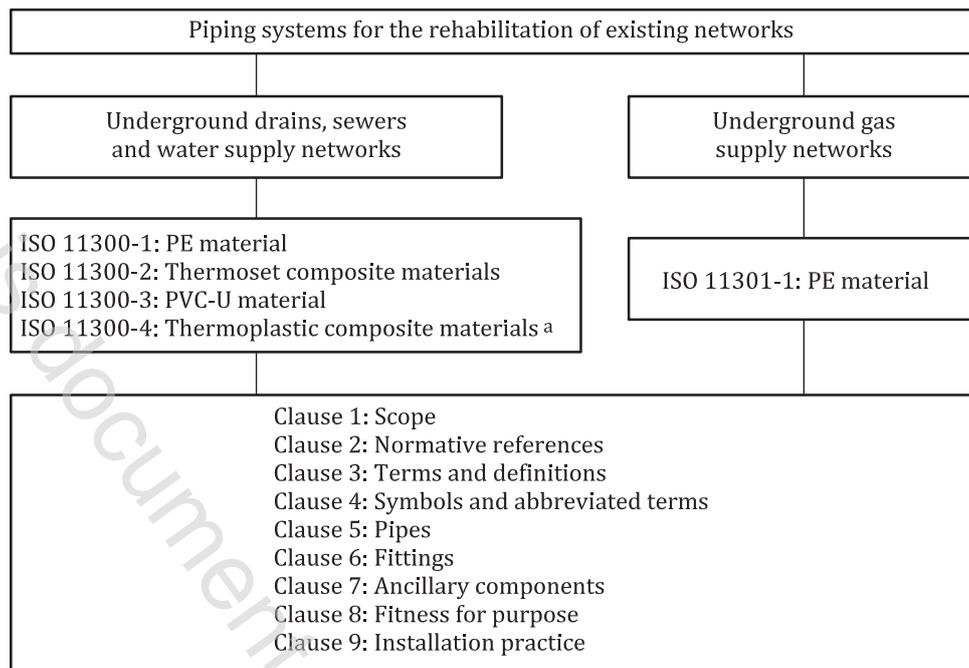
These documents cover various techniques for renovation and trenchless replacement. Furthermore, they are distinguished from those for conventionally installed plastics piping systems by the requirement to verify certain characteristics in the “as-installed” condition, after site processing. This is in addition to specifying requirements for piping system components “as manufactured”.

A consistent structure of clause headings has been adopted for all parts of the ISO 11300 series and ISO 11301 series, in order to facilitate direct comparisons across renovation technique families.

[Figure 1](#) shows the clause structure and the relationship between the ISO 11300 series and the ISO 11301 series.

For complementary information, see ISO 11295.

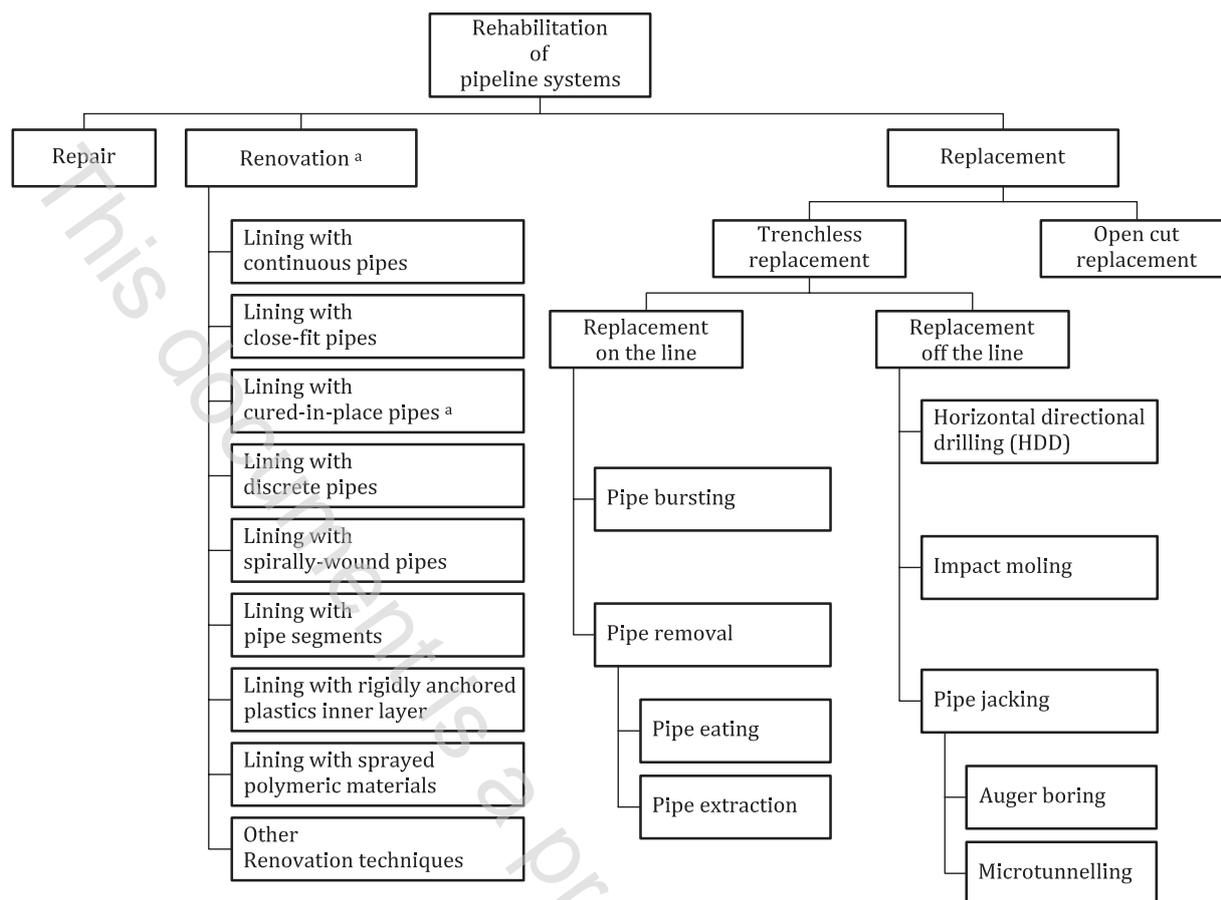
For assessment of conformity to the requirements of this document, see ISO/TS 23818-3^[1].



^a In preparation.

Figure 1 — Clause structure of the ISO 11300 series and the ISO 11301 series

The various techniques for rehabilitation of underground drains, sewers and water supply networks, within the scope of pipeline rehabilitation techniques generally, are shown schematically in [Figure 2](#). For definitions of standardized renovation techniques shown in [Figure 2](#), but outside the scope of this document, see ISO 11295.



^a This document is applicable, for piping systems made from PVC-U materials.

Figure 2 — Technique families for rehabilitation of underground drains, sewers and water supply networks using plastics pipes, within the scope of pipeline rehabilitation techniques

Piping systems for rehabilitation of underground drains, sewers and water supply networks —

Part 3: Unplasticized poly (vinyl chloride) (PVC-U) material

1 Scope

This document specifies requirements and test methods for pipes and fittings which are part of piping systems for the rehabilitation of non-pressure underground drains and sewers.

NOTE It is not applicable to use of PVC-U material for rehabilitation of pipes under pressure.

It is applicable to unplasticized poly (vinyl chloride) (PVC-U) pipes, fittings and assemblies, as manufactured and as installed with service temperature not exceeding 35 °C. It is not applicable to the existing pipeline.

This document is applicable to the renovation technique family “lining with close-fit pipes”.

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 527-2, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics*

ISO 2505, *Thermoplastics pipes — Longitudinal reversion — Test method and parameters*

ISO 2507-1, *Thermoplastics pipes and fittings — Vicat softening temperature — Part 1: General test method*

ISO 3126, *Plastics piping systems — Plastics components — Determination of dimensions*

ISO 3127, *Thermoplastics pipes — Determination of resistance to external blows — Round-the-clock method*

ISO 4435, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U)*

ISO 6259-1, *Thermoplastics pipes — Determination of tensile properties — Part 1: General test method*

ISO 9852, *Unplasticized poly(vinyl chloride) (PVC-U) pipes — Dichloromethane resistance at specified temperature (DCMT) — Test method*

ISO 9967, *Thermoplastics pipes — Determination of creep ratio*

ISO 9969, *Thermoplastics pipes — Determination of ring stiffness*

ISO 11295, *Plastics piping systems used for the rehabilitation of pipelines — Classification and overview of strategic, tactical and operational activities*

ISO 18373-1, *Rigid PVC pipes — Differential scanning calorimetry (DSC) method — Part 1: Measurement of the processing temperature*

EN 1401-1, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U) – Part 1: Specifications for pipes, fittings and the system*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11295 and the following 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 General

3.1.1

characteristic

property, dimension or other feature of a material or component

[SOURCE: ISO 11300-1:2026, 3.1.1]

3.1.2

declared value

limiting value of a *characteristic* (3.1.1) declared in advance by the *rehabilitation system supplier* (3.1.3), which becomes the requirement for the purposes of assessment of conformity

[SOURCE: ISO 11300-1:2026, 3.1.2]

3.1.3

rehabilitation system supplier

entity that specifies the field and range of application and brings together the components of a rehabilitation system to meet the requirements of the product standard at the “*M*” stage (3.4.1), so that when installed in accordance with the installation manual they meet the requirements of the product standard at the “*I*” stage (3.4.2)

[SOURCE: ISO 11300-1:2026, 3.1.5]

3.1.4

system installer

entity that prepares the host pipe, takes the rehabilitation system at the “*M*” stage (3.4.1) and installs it so that it is at the “*I*” stage (3.4.2)

[SOURCE: ISO 11300-1:2026, 3.1.6]

3.2 Terms related to techniques

3.2.1

close fit

situation of the outside of the installed liner relative to the inside of the existing pipeline, which may either be an interference fit or include a small annular gap resulting from shrinkage and tolerances only

[SOURCE: ISO 11295:2026, 3.2.1]

3.2.2

close-fit pipe

continuous lining pipe of thermoplastic material reshaped or otherwise expanded after insertion to achieve a *close fit* (3.2.1) to the existing pipeline

[SOURCE: ISO 11295:2026, 3.2.2]