

Plastics piping systems for renovation of underground water supply networks - Part 1: General (ISO 11298-1:2018)

EESTI STANDARDI EESSÕNA

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ICS 23.040.20, 23.040.45, 93.025

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EUROPEAN STANDARD

EN ISO 11298-1

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English Version

Plastics piping systems for renovation of underground water supply networks - Part 1: General (ISO 11298-1:2018)

Systèmes de canalisations en plastique pour la rénovation des réseaux enterrés d'alimentation en eau
- Partie 1: Généralités (ISO 11298-1:2018)

Kunststoff-Rohrleitungssysteme für die Renovierung von erdverlegten Wasserversorgungsnetzen - Teil 1:
Allgemeines (ISO 11298-1:2018)

This European Standard was approved by CEN on 27 March 2018.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

European foreword

This document (EN ISO 11298-1:2018) 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of an identical text or by endorsement, at the latest by October 2018, and conflicting national standards shall be withdrawn at the latest by October 2018.

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 11298-1:2011.

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

Endorsement notice

The text of ISO 11298-1:2018 has been approved by CEN as EN ISO 11298-1:2018 without any modification.

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	8
4.1 Symbols.....	8
4.2 Abbreviated terms.....	8
5 Pipes at the “M” stage	9
5.1 Materials.....	9
5.2 General characteristics.....	9
5.3 Material characteristics.....	9
5.4 Geometric characteristics.....	9
5.5 Mechanical characteristics.....	9
5.6 Physical characteristics.....	9
5.7 Jointing.....	9
5.8 Marking.....	9
6 Fittings at the “M” stage	10
6.1 Materials.....	10
6.2 General characteristics.....	10
6.3 Material characteristics.....	10
6.4 Geometric characteristics.....	10
6.5 Mechanical characteristics.....	10
6.6 Physical characteristics.....	10
6.7 Jointing.....	10
6.8 Marking.....	10
7 Ancillary components	11
8 Fitness for purpose of the installed lining system at the “I” stage	11
8.1 Materials.....	11
8.2 General characteristics.....	11
8.3 Material characteristics.....	12
8.3.1 Effect on water quality.....	12
8.3.2 Sealing rings.....	12
8.4 Geometric characteristics.....	12
8.5 Mechanical characteristics.....	12
8.6 Physical characteristics.....	13
8.7 Additional characteristics.....	13
8.8 Sampling.....	13
8.9 Regional requirements for the installed lining system.....	13
9 Installation practice	13
9.1 Preparatory work.....	13
9.2 Storage, handling and transport of pipes and fittings.....	13
9.3 Equipment.....	13
9.3.1 General.....	13
9.3.2 Inspection equipment.....	13
9.3.3 Lifting equipment.....	13
9.4 Installation.....	14
9.4.1 General.....	14
9.4.2 Safety precautions.....	14
9.4.3 Simulated installations.....	14
9.5 Process-related inspection and testing.....	14

9.6	Lining termination.....	15
9.7	Reconnection to the existing pipeline system.....	15
9.8	Final inspection and testing.....	15
9.9	Documentation.....	15
Bibliography.....		16

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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 on 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 the following URL: 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*.

This second edition cancels and replaces the first edition (ISO 11298-1:2010), which has been technically revised. The main changes are in [Clauses 2, 3.1, 3.2, 3.3, 4.2, and 8.9](#), and [Figures 1 and 2](#).

A list of all parts in the ISO 11298 series, can be found on the ISO website.

Introduction

This document is a part of a System Standard for plastics piping systems of various materials used for the renovation of existing pipelines in a specified application area. System Standards for renovation deal with the following applications:

- ISO 11296: *Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks;*
- ISO 11297: *Plastics piping systems for renovation of underground drainage and sewerage networks under pressure;*
- ISO 11298: *Plastics piping systems for renovation of underground water supply networks (this document);*
- ISO 11299: *Plastics piping systems for renovation of underground gas supply networks.*

These System Standards 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 plastics piping system components “as manufactured”.

Each of the System Standards comprises a:

- *Part 1: General* (this document)

and all applicable renovation technique family-related parts, which for water supply networks include or potentially include the following:

- *Part 2: Lining with continuous pipes;*
- *Part 3: Lining with close-fit pipes;*
- *Part 4: Lining with cured-in-place pipes;*
- *Part 5: Lining with discrete pipes;*
- *Part 6: Lining with adhesive-backed hoses;*
- *Part 10: Lining with sprayed polymeric materials;*
- *Part 11: Lining with inserted hoses.*

The requirements for any given renovation technique family are specified in Part 1, applied in conjunction with the relevant other part. For example, this document and ISO 11298-3 specify the requirements relating to lining with close-fit pipes. For complementary information, see ISO 11295. Not all technique families are pertinent to every area of application and this is reflected in the part numbers included in each System Standard.

A consistent structure of clause headings has been adopted for all parts of ISO 11298, in order to facilitate direct comparisons across renovation technique families.

[Figure 1](#) shows the common part and clause structure and the relationship between ISO 11298 and the System Standards for other application areas.

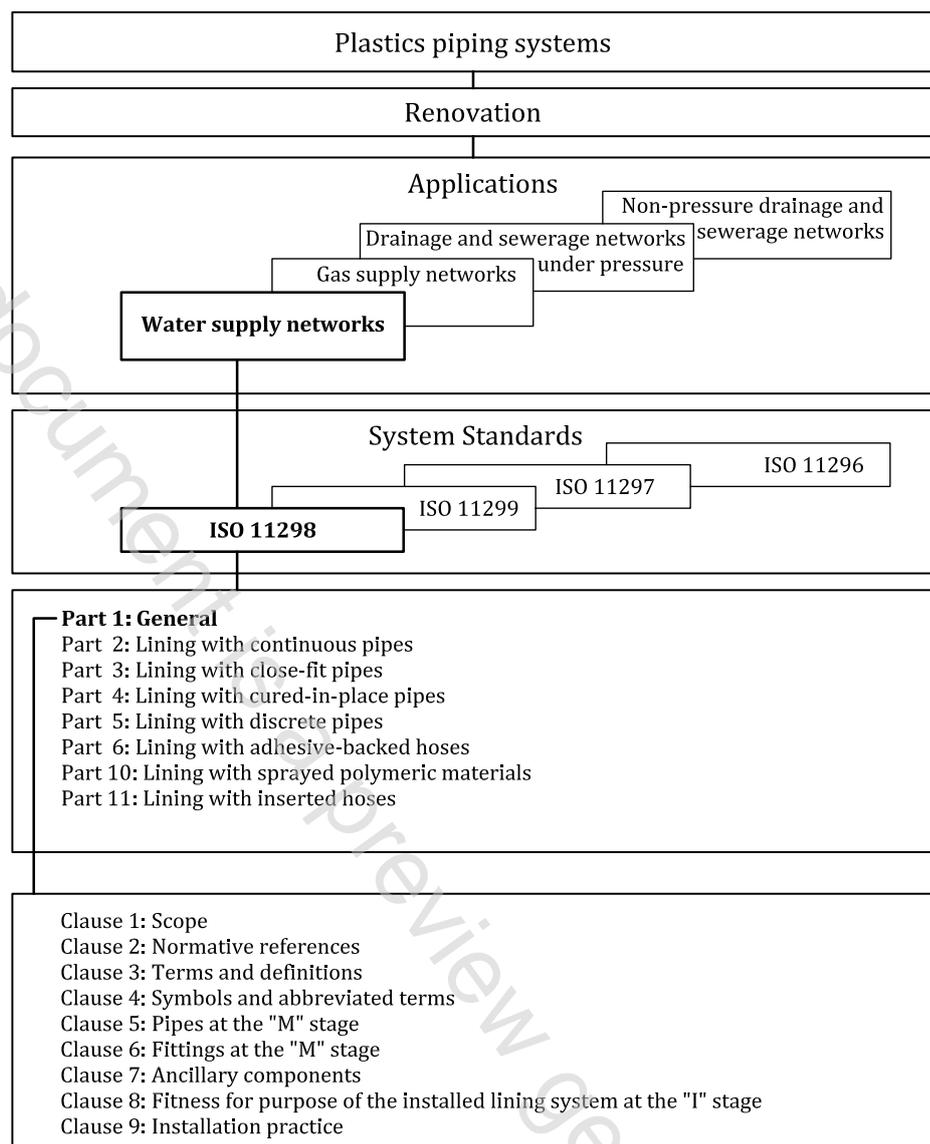


Figure 1 — Format of the renovation system standards

Plastics piping systems for renovation of underground water supply networks —

Part 1: General

1 Scope

This document specifies the requirements and test methods for plastics piping systems intended to be used for the renovation of underground water supply networks. It is applicable to pipes and fittings, as manufactured, as well as to the installed lining system. It is not applicable to the existing pipeline or any non-structural sprayed coatings or annular filler.

This document gives the general requirements common to all relevant renovation techniques.

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 4633, *Rubber seals — Joint rings for water supply, drainage and sewerage pipelines — Specification for materials*

EN 681-1, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber*

EN 681-2, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 2: Thermoplastic elastomers*

EN 681-3, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 3: Cellular materials of vulcanized rubber*

EN 681-4, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 4: Cast polyurethane sealing elements*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 General

3.1.1

pipeline system

interconnecting pipe network for the conveyance of fluids