

Potrubné systémy z plastov na renováciu beztlakových kanalizačných potrubí a stôk uložených v zemi - Časť 2: Výstelkovanie súvislým potrubím (ISO 11296-2: 2018)

STN EN ISO 11296-2

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Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks - Part 2: Lining with continuous pipes (ISO 11296-2:2018)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/18

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English Version

Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks - Part 2: Lining with continuous pipes (ISO 11296-2:2018)

Systèmes de canalisations en plastique pour la rénovation des réseaux de branchements et de collecteurs d'assainissement enterrés sans pression - Partie 2: Tubage par tuyau continu avec espace annulaire (ISO 11296-2:2018)

Kunststoff-Rohrleitungssysteme zur Renovierung von erdverlegten drucklosen Entwässerungsnetzen (Freispiegelleitungen) - Teil 2: Rohrstrang-Lining (ISO 11296-2:2018)

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EN ISO 11296-2:2018 (E)

Contents	Page		
European foreword	3		

European foreword

This document (EN ISO 11296-2:2018) has been prepared by Technical Committee ISO/TC 138 "Rehabilitation of pipeline systems" 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of an identical text or by endorsement, at the latest by August 2018, and conflicting national standards shall be withdrawn at the latest by August 2018.

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Endorsement notice

The text of ISO 11296-2:2018 has been approved by CEN as EN ISO 11296-2:2018 without any modification.

INTERNATIONAL STANDARD

ISO 11296-2

First edition 2018-02

Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks —

Part 2: **Lining with continuous pipes**

Systèmes de canalisations en plastique pour la rénovation des réseaux de branchements et de collecteurs d'assainissement enterrés sans pression —

Partie 2: Tubage par tuyau continu avec espace annulaire



ISO 11296-2:2018(E)



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Contents		Page	
Fore	eword		iv
Intr	oductio	n	v
1	Scon	e	1
2	-	native references	
3		ns and definitions	
4			
	4.1	ools and abbreviated terms Symbols	
	4.2	Abbreviated terms	
5	Pipe	s at the "M" stage	2
	5.1	Material	
	5.2	General characteristics	2
	5.3	Material characteristics	
	5.4	Geometrical characteristics	
	5.5	Mechanical characteristics	
	5.6	Physical characteristics	
	5.7 5.8	Jointing Marking	
	5.0 5.9	Regional requirements for pipes	
6			
6	6.1	ngs at the "M" stage	
	6.2	Marking	
	6.3	Regional requirements for fittings	
7	Anci	llary components	
8		ess for purpose of the system for pipes and fittings at the "I" stage	
9		illation practice	
9	9.1	Preparatory work	
	9.2	Storage, handling and transport	
	9.3	Equipment	
		9.3.1 Butt fusion equipment and de-beading equipment	
		9.3.2 Pipe rollers	5
		9.3.3 Winching and rod-pulling equipment	
		9.3.4 Pipe entry guides	
		9.3.5 Electrofusion equipment	
		9.3.6 Inspection equipment	
	0.4	9.3.7 Lifting equipment	
	9.4	Installation	
	9.5 9.6	Process-related inspection and testingLining termination	
	9.0 9.7	Reconnection to the existing pipeline system	
	9.8	Final inspection and testing	
	9.9	Documentation	6
Ann			
	_	ormative) Layered pipes	
Kih	lingrank	AV	Ω

ISO 11296-2:2018(E)

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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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*.

A list of all parts in the ISO 11296 series can be found on the ISO website.

Introduction

This document is part of a system standard for plastics piping systems of various materials used for renovation of existing pipelines in a specified application area. System standards for renovation dealing with the following applications are either available or in preparation:

- ISO 11296, Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks (this application);
- 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;
- ISO 11299, Plastics piping systems for renovation of underground gas supply networks.

These system standards are distinguished from system standards 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 verification of characteristics of plastics piping systems "as manufactured".

Each of the system standards comprises a:

— Part 1: General

and all applicable renovation technique family-related parts, which for non-pressure drainage and sewerage networks include or potentially include the following:

- Part 2: Lining with continuous pipes (this document)
- Part 3: Lining with close-fit pipes
- Part 4: Lining with cured-in-place pipes
- Part 5: Lining with discrete pipes
- Part 7: Lining with spirally-wound pipes
- Part 8: Lining with pipe segments
- Part 9: Lining with rigidly anchored plastics inner layer
- Part 10: Lining with sprayed polymeric materials

The requirements for any given renovation technique family are specified in ISO 11296-1, applied in conjunction with the relevant other part. For example, both ISO 11296-1 and this document together specify the requirements relating to lining with continuous 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 to facilitate direct comparisons across renovation technique families.

Figure 1 shows the common part and clause structure and the relationship between ISO 11296 and system standards for other applications.

ISO 11296-2:2018(E)

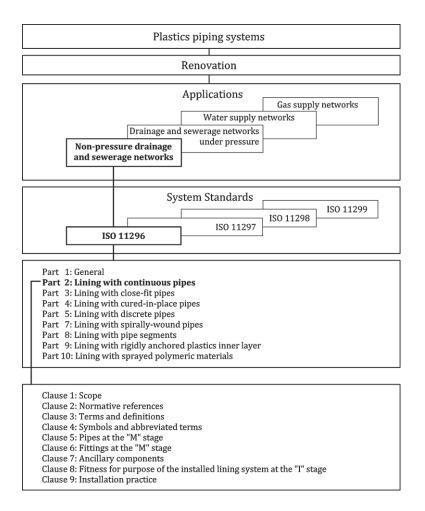


Figure 1 — Format of the renovation system standards

Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks —

Part 2:

Lining with continuous pipes

1 Scope

This document, in conjunction with ISO 11296-1, specifies requirements and test methods for pipes and fittings which are part of plastics piping systems installed as continuous pipes in the renovation of underground non-pressure drainage and sewerage networks. It is applicable to polyethylene (PE) pipes of three different types:

- PE solid wall single layered pipes (nominal outside diameter, d_n), including any identification stripes;
- PE pipes with co-extruded layers on either or both the outside and inside of the pipe (total outside diameter, d_n), as specified in Annex A, where all layers have the same MRS rating;
- PE coated pipes (outside diameter, d_n) having a peelable, contiguous, thermoplastics additional layer on the outside of the pipe ("coated pipe"), see Annex A.

In addition it covers:

- jointing of pipe lengths by means of butt fusion;
- fabricated and injection-moulded fittings made of PE.

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 8772, Plastics piping systems for non-pressure underground drainage and sewerage — Polyethylene (PE)

ISO 11296-1:2018, Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks — Part 1: General

ISO 12176-1, Plastics pipes and fittings — Equipment for fusion jointing polyethylene systems — Part 1: Butt fusion

ISO 12176-2, Plastics pipes and fittings — Equipment for fusion jointing polyethylene systems — Part 2: Electrofusion

EN 12666-1, Plastics piping systems for non-pressure underground drainage and sewerage — Polyethylene (PE) — Part 1: Specifications for pipes, fittings and the system

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