



# SLOVENSKI STANDARD SIST EN ISO 11295:2010

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**Razvrščanje in informacije o projektiranju cevnih sistemov iz polimernih materialov za sanacijo (ISO 11295:2010)**

Classification and information on design of plastics piping systems used for renovation (ISO 11295:2010)

Klassifizierung von Kunststoff-Rohrleitungssystemen für die Renovierung und Informationen zur Planung (ISO 11295:2010)

Classification et informations relatives à la conception des systèmes de canalisations en plastique destinés à la rénovation (ISO 11295:2010)

**Ta slovenski standard je istoveten z: EN ISO 11295:2010**

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**ICS:**

23.040.01	Deli cevodovov in cevodovi na splošno	Pipeline components and pipelines in general
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**SIST EN ISO 11295:2010**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**EN ISO 11295**

March 2010

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Supersedes EN 13689:2002

English Version

## Classification and information on design of plastics piping systems used for renovation (ISO 11295:2010)

Classification et informations relatives à la conception des systèmes de canalisations en plastique destinés à la rénovation (ISO 11295:2010)

Leitfaden zur Klassifizierung und Planung von Kunststoff-Rohrleitungssystemen für Renovierung (ISO 11295:2010)

This European Standard was approved by CEN on 6 February 2010.

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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 Management Centre has the same status as the official versions.

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**Contents**

Page

Foreword.....3

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[https://standards.iteh.ai/catalog/standards/sist/4ce87a87-b7b7-4f55-b6f7-  
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## Foreword

This document (EN ISO 11295:2010) 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 September 2010, and conflicting national standards shall be withdrawn at the latest by September 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13689:2002.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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# INTERNATIONAL STANDARD

**ISO**  
**11295**

First edition  
2010-03-01

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## Classification and information on design of plastics piping systems used for renovation

*Classification et informations relatives à la conception des systèmes  
de canalisations en plastique destinés à la rénovation*

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## Contents

Page

Foreword .....	iv
Introduction.....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Abbreviated terms .....	3
5 Classification of renovation techniques .....	3
5.1 General .....	3
5.2 Lining with continuous pipes .....	4
5.3 Lining with close-fit pipes .....	6
5.4 Lining with cured-in-place pipes .....	8
5.5 Lining with discrete pipes .....	10
5.6 Lining with adhesive-backed hoses .....	12
5.7 Lining with spirally-wound pipes.....	13
6 Information on design .....	14
6.1 General .....	14
6.2 Condition assessment .....	15
6.3 Lining system functions .....	16
6.4 Performance criteria.....	17
6.5 Other factors affecting lining system selection.....	20
Annex A (informative) Process-related aspects .....	22
Bibliography.....	28

## ISO 11295:2010(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11295 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*.

This first edition of ISO 11295 cancels and replaces ISO/TR 11295:1992.

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## Introduction

This International Standard classifies the techniques used for the renovation of existing pipelines and gives information on the design of plastics piping systems used for such renovation.

Over the past 25 years, the rehabilitation of pipeline systems has become increasingly important.

Pipeline systems are continuously required to satisfy physical, chemical, biochemical and biological demands. These demands depend on planning, material, construction, type and period of use.

When pipeline systems become operational, proper system management has to be put in place. In addition to inspection and cleaning, rehabilitation of the pipeline can be required. Rehabilitation is carried out when there is need for restoration or upgrading of the pipeline system in terms of its performance. Rehabilitation can consist of repair, renovation or replacement.

To coincide with the publication of ISO product standards for various families of renovation techniques in three different application areas, the need to upgrade ISO/TR 11295 to a full International Standard was recognized, and, at the same time, focus on renovation.

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# Classification and information on design of plastics piping systems used for renovation

## 1 Scope

This International Standard defines and describes families of techniques for the renovation of non-pressure and pressure pipelines through the use of plastics pipes, fittings and ancillary components. For each technique family, it identifies areas of application from the range covered by existing renovation product standards, which include underground drainage and sewerage, and underground water and gas supply networks.

This International Standard provides information on the principles of, but not the detailed methodologies for, the design of plastics piping systems applied as linings to existing pipelines, covering:

- existing pipeline and site conditions;
- lining system functions;
- structural performance;
- hydraulic performance;
- other factors affecting lining system selection.

It does not cover the calculation methods used to determine, for each viable technique, the required amount of lining material needed to secure the desired performance of the renovated pipeline.

## 2 Normative references

The following referenced documents are indispensable for the application 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 1043-1, *Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics*

## 3 Terms and definitions

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

NOTE For ease of reference, see Clause 5 for definitions of the following individual technique families reproduced from other International Standards:

- lining with continuous pipes;
- lining with close-fit pipes;
- lining with cured-in-place pipes;