# **EESTI STANDARD**

Thermoplastics piping systems for underground non-pressure applications - Test method for leaktightness of elastomeric sealing ring type joints (ISO 13259:2018) 



## EESTI STANDARDI EESSÕNA

### NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 13259:2018 sisaldab Euroopa standardi EN ISO 13259:2018 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 13259:2018 consists of the English text of the European standard EN ISO 13259:2018.		
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.		
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.06.2018.	Date of Availability of the European standard is 06.06.2018.		
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.		
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#### ICS 23.040.20, 91.140.80

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# **EUROPEAN STANDARD** NORME EUROPÉENNE **EUROPÄISCHE NORM**

# **EN ISO 13259**

June 2018

ICS 23.040.20; 91.140.80

Supersedes EN 1277:2003

**English Version** 

# Thermoplastics piping systems for underground nonpressure applications - Test method for leaktightness of elastomeric sealing ring type joints (ISO 13259:2018)

Systèmes de canalisations en thermoplastiques pour applications enterrées sans pression - Méthodes d'essai d'étanchéité des assemblages à bague d'étanchéité en élastomère (ISO 13259:2018)

Erdverlegte Rohrleitungssysteme aus Thermoplasten für drucklose Anwendungen - Prüfverfahren für die Dichtheit von elastomeren Dichtringverbindungen (ISO 13259:2018)

This European Standard was approved by CEN on 19 April 2018.

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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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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 13259:2018) 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 December 2018, and conflicting national standards shall be withdrawn at the latest by June 2021.

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 1277:2003.

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 13259:2018 has been approved by CEN as EN ISO 13259:2018 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 documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="https://www.iso.org/directives">www.iso.org/directives</a>).

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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: <a href="http://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 1, *Plastics pipes and fittings for soil, waste and drainage (including land drainage)*.

This second edition cancels and replaces the first edition (ISO 13259:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- in Clause 7, the temperature conditions are revised;
- in 8.1, c), in the general procedure, a test at 0° angular deflection is added;
- in 8.2, in the procedure for applying diametric deflection to spigot and socket, test arrangement for testing the tightness of couplers/repair collars is added, as well as the related figures.

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# Thermoplastics piping systems for underground nonpressure applications — Test method for leaktightness of elastomeric sealing ring type joints

## 1 Scope

This document specifies a test method for determining the leaktightness of elastomeric sealing ring type joints for buried thermoplastics non-pressure piping systems.

Unless otherwise specified in the referring standard, the tests are carried out at the following basic test pressures:

- *p*<sub>1</sub>: internal negative air pressure (partial vacuum);
- *p*<sub>2</sub>: a low internal hydrostatic pressure;
- *p*<sub>3</sub>: a higher internal hydrostatic pressure.

It also describes the following four test conditions under which the tests are performed:

- a) Condition A: without any additional diametric or angular deflection;
- b) Condition B: with diametric deflection;
- c) Condition C: with angular deflection;
- d) Condition D: with simultaneous angular and diametric deflection.

The applicable selection of the test pressure(s) and the test condition(s) is specified in the referring standard.

#### 2 Normative references

There are no normative references in this document.

#### 3 Terms and definitions

No terms and definitions are listed in this document.

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 <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>

#### 4 Principle

A test piece assembled from pipes and/or fittings is subjected to a specific initial internal negative air pressure,  $p_1$  followed by a low specific initial internal hydrostatic pressure,  $p_2$  and a higher internal hydrostatic pressure,  $p_3$ .

During testing the joint may be subjected to diametric and/or angular deflection(s). The referring product standard shall specify which of the test pressures and deflection conditions have to be carried out.