

Thermoplastics piping systems for non-pressure applications - Test method for resistance to elevated temperature cycling (ISO 13257:2018)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

|   |  |
|---|--|
| See Eesti standard EVS-EN ISO 13257:2018 sisaldab Euroopa standardi EN ISO 13257:2018 ingliskeelset teksti.         | This Estonian standard EVS-EN ISO 13257:2018 consists of the English text of the European standard EN ISO 13257:2018.              |
| 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 12.12.2018. | Date of Availability of the European standard is 12.12.2018.   |
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ICS 23.040.20, 91.140.80

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EUROPEAN STANDARD

**EN ISO 13257**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 13257:2017

English Version

**Thermoplastics piping systems for non-pressure applications - Test method for resistance to elevated temperature cycling (ISO 13257:2018)**

Systèmes de canalisations thermoplastiques pour applications sans pression - Méthode d'essai de résistance à des cycles de température élevée (ISO 13257:2018)

Rohrleitungssysteme aus Thermoplasten für drucklose Anwendungen - Prüfverfahren für die Temperaturbeanspruchbarkeit (ISO 13257:2018)

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

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 13257:2018) 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 June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

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 13257:2017.

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, 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 13257:2018 has been approved by CEN as EN ISO 13257:2018 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 [www.iso.org/directives](http://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](http://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 1, *Plastics pipes and fittings for soil, waste and drainage (including land drainage)*.

This second edition cancels and replaces the first edition (ISO 13257:2010), which has been technically revised. The major modifications to the previous edition are:

- revision of the Scope to delete the references to application areas "B", "BD" and "UD";
- addition in the Scope of the range of nominal outside diameters of components to which this method is applicable;
- addition of a definition for "sagging";
- complete review of [Clause 6](#), Test assemblies, in particular distinction between test assemblies including pipes with integral sockets and fittings with socket and spigot ([Figure 1](#)) and test assemblies including pipes without integral socket and fittings with sockets ([Figure 2](#)) for components  $d_n \geq 40$  mm;
- in [Clause 7](#), addition of [Figure 4](#) to illustrate the measuring point of the column of water.

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](http://www.iso.org/members.html).

# Thermoplastics piping systems for non-pressure applications — Test method for resistance to elevated temperature cycling

## 1 Scope

This document specifies a test method for determining the resistance to elevated temperature cycling of thermoplastics piping systems for non-pressure applications, inside buildings or buried in the ground within the building structure.

This document is applicable to piping systems with components of nominal outside diameters up to and including 200 mm.

Although limited to nominal outside diameters up to and including 200 mm, the test results may be extrapolated to products of larger nominal outside diameters from the same range.

## 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/TS 7024:2005, *Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings — Thermoplastics — Recommended practice for installation*

## 3 Terms and definitions and symbols

### 3.1 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 <https://www.iso.org/obp/>

#### 3.1.1

##### **nominal outside diameter**

$d_n$

specified diameter assigned to a nominal size (DN/OD or DN/ID)

Note 1 to entry: It is expressed in millimetres.

#### 3.1.2

##### **sagging**

$S_g$

deformation of the pipe occurring from the test conditions, which is measured after the test at a defined location in vertical direction downwards

Note 1 to entry: It is expressed in millimetres.