

Irish Standard I.S. EN ISO 13260:2011&A1:2017

Thermoplastics piping systems for nonpressure underground drainage and sewerage - Test method for resistance to combined temperature cycling and external loading (ISO 13260:2010)

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#### **National Foreword**

I.S. EN ISO 13260:2011&A1:2017 is the adopted Irish version of the European Document EN ISO 13260:2011, Thermoplastics piping systems for non-pressure underground drainage and sewerage - Test method for resistance to combined temperature cycling and external loading (ISO 13260:2010)

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# EUROPEAN STANDARD

# EN ISO 13260:2011/A1

# NORME EUROPÉENNE

## **EUROPÄISCHE NORM**

September 2017

ICS 23.040.45; 91.140.80; 23.040.20; 93.030

**English Version** 

## Thermoplastics piping systems for non-pressure underground drainage and sewerage - Test method for resistance to combined temperature cycling and external loading - Amendment 1 (ISO 13260:2011/Amd 1:2017)

Systèmes de canalisations thermoplastiques pour branchements et collecteurs d'assainissement enterrés sans pression - Méthode d'essai de la résistance à un cycle de température et de charge externe combinés -Amendement 1 (ISO 13260:2011/Amd 1:2017) Kunststoff-Rohrleitungssysteme aus Thermoplasten für erdverlegte Abwasserkanäle und -leitungen -Prüfverfahren zur Bestimmung der Widerstandsfähigkeit gegen Temperaturwechsel und gleichzeitige äußere Belastung - Änderung 1 (ISO 13260:2011/Amd 1:2017)

This amendment A1 modifies the European Standard EN ISO 13260:2011; it was approved by CEN on 12 September 2017.

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Ref. No. EN ISO 13260:2011/A1:2017 E

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## **European foreword**

This document (EN ISO 13260:2011/A1:2017) 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 Amendment to the European Standard EN ISO 13260:2011 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

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#### **Endorsement notice**

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## **EUROPEAN STANDARD**

# EN ISO 13260

## NORME EUROPÉENNE

## EUROPÄISCHE NORM

September 2011

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Supersedes EN 1437:2002

**English Version** 

## Thermoplastics piping systems for non-pressure underground drainage and sewerage - Test method for resistance to combined temperature cycling and external loading (ISO 13260:2010)

Systèmes de canalisations thermoplastiques pour branchements et collecteurs d'assainissement enterrés sans pression - Méthode d'essai de la résistance à un cycle de température et de charge externe combinés (ISO 13260:2010) Kunststoff-Rohrleitungssysteme aus Thermoplasten für erdverlegte Abwasserkanäle und -leitungen - Prüfverfahren zur Bestimmung der Widerstandsfähigkeit gegen Temperaturwechsel und gleichzeitige äußere Belastung (ISO 13260:2010)

This European Standard was approved by CEN on 11 August 2011.

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## Foreword

The text of ISO 13260:2010 has been prepared by Technical Committee ISO/TC 138 "Plastics pipes, fittings and valves for the transport of fluids" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 13260:2011 by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems" the secretariat of which is held by NEN.

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# INTERNATIONAL STANDARD

ISO 13260

First edition 2010-06-15

## Thermoplastics piping systems for nonpressure underground drainage and sewerage — Test method for resistance to combined temperature cycling and external loading

Systèmes de canalisations thermoplastiques pour branchements et collecteurs d'assainissement enterrés sans pression — Méthode d'essai de la résistance à un cycle de température et de charge externe combinés



Reference number ISO 13260:2010(E)

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## Foreword

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ISO 13260 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)*.

# Thermoplastics piping systems for non-pressure underground drainage and sewerage — Test method for resistance to combined temperature cycling and external loading

#### 1 Scope

This International Standard specifies two methods for testing pipes and fittings or joints for plastics piping systems intended for use in underground drainage and sewerage systems for their resistance to deformation and leakage, when subjected to sustained external loading in conjunction with the passage of hot water.

**Method A** involves temperature cycling, by passing hot water and cold water alternately, and is applicable to pipes and associated fittings having a mean outside diameter  $d_{em} \leq 190$  mm.

**Method B** involves passing hot water only, except at intervals specified for measurement of internal deflection, and is applicable to pipes and associated fittings having a mean outside diameter 190 mm  $< d_{em} \le 510$  mm.

#### 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 48, Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)

#### 3 Principle

A test piece comprising a pipe or an assembly of pipe(s) and fitting(s) is placed on a 100 mm gravel bed and covered with gravel to 600 mm above the crown of the pipe confined by a box of specified dimensions. Depending on the nominal size of the largest pipe or joint under test, a constant vertical load is applied via the gravel and either a specified number of cycles of hot and cold water or just hot water is passed through the test piece. The deformation of the test piece, as indicated by vertical deflection or internal diametric compression, is measured.

For sizes having a mean outside diameter  $d_{em} \leq 190$  mm, hot and cold water is passed through the test piece and air may be blown through the test piece during the intervals between stages (Method A).

For pipes with a mean outside diameter  $190 < d_{em} \le 510$  mm a constant flow of hot water is passed through the test piece (Method B).

Vertical deflection of the test piece is measured. The test piece is checked at the end of the test for cracking, for local deflection in the bottom of the main channel and for leakage at the joints.



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