

Plastics piping systems - Thermoplastics pipes and fittings for hot and cold water - Test method for the resistance of mounted assemblies to temperature cycling (ISO 19893:2011)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 19893:2018 sisaldab Euroopa standardi EN ISO 19893:2018 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 19893:2018 consists of the English text of the European standard EN ISO 19893:2018.
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 26.09.2018.	Date of Availability of the European standard is 26.09.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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English Version

Plastics piping systems - Thermoplastics pipes and fittings  
for hot and cold water - Test method for the resistance of  
mounted assemblies to temperature cycling (ISO  
19893:2011)

Systèmes de canalisations en plastique - Tubes  
thermoplastiques et raccords pour eau chaude et  
froide - Méthode d'essai de la résistance des  
assemblages à des cycles de température (ISO  
19893:2011)

Kunststoff-Rohrleitungssysteme - Rohre und  
Formstücke aus Thermoplasten für Warm- und  
Kaltwasser - Prüfverfahren für die  
Widerstandsfähigkeit von montierten Baugruppen  
gegen Temperaturwechselbeanspruchung (ISO  
19893:2011)

This European Standard was approved by CEN on 1 September 2017.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

The text of ISO 19893:2011 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 19893:2018 by 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of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by September 2021.

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## Endorsement notice

The text of ISO 19893:2011 has been approved by CEN as EN 19893:2018 without any modification.

# Plastics piping systems — Thermoplastics pipes and fittings for hot and cold water — Test method for the resistance of mounted assemblies to temperature cycling

## 1 Scope

This International Standard specifies a method for testing the resistance to temperature cycling of joints for piping systems with rigid or flexible thermoplastics pipes.

It is applicable to thermoplastics piping systems intended to be used in hot and cold water pressure applications.

## 2 Principle

A test assembly of pipes and fittings (see Figure 1) is subjected to temperature cycling by the passage of water under pressure using hot and cold water alternately, for a specified number of cycles.

While being subjected to temperature cycling, parts of the assembly of pipes and fittings are maintained under tensile stress and/or flexural strain using static clamps.

During and after the test, the assembly is monitored for signs of leakage.

**NOTE** It is assumed that the following test parameters are set by the reference product standard (i.e. the standard making reference to this International Standard):

- a) the test temperatures (see 3.1, 3.2 and 6.1);
- b) the duration of a complete cycle and each part of the cycle (see 3.1, 3.2 and 6.1);
- c) the test pressure (see 3.6 and 6.1);
- d) the tensile stress (see 3.8 and 5.3);
- e) the bending radius (see Clause 4 and Figures 1 and 2);
- f) the total number of cycles, including the first five cycles (see 6.2 and 6.3).