

**Plasttorustikusüsteemid.
Polüetüleenventiilid (PE). Tsüklilisele
temperatuuri muutumisele
vastupidavuse katsemeetod**

Plastics piping systems - Polyethylene (PE) valves -
Test method for resistance to thermal cycling

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12119:1999 sisaldab Euroopa standardi EN 12119:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12119:1999 consists of the English text of the European standard EN 12119:1997.</p> <p>This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>Käesolev standard määrab kindlaks temperatuuri tsüklilisele muutumisele vastupidavuse testimise meetodi ventiilide jaoks. Standard kehtib nende polüetüleenventiilide ja polüetüleenotsmuhvide suhtes, mille nimivälisläbimõõt on suurem kui 63 mm ja mis on ette nähtud vedelike teisaldamiseks.</p>	<p>Scope:</p>
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ICS 23.060.01

Võtmesõnad: plasttorud, polüetüleen, termotsüklimestid, vastupidavus temperatuurile, ventiilid

ICS 23.060.01

Descriptors: Thermal cycling resistance, valves, polyethylene, testing.

English version

Plastics piping systems
Polyethylene (PE) valves

Test method for resistance to thermal cycling

Systèmes de canalisations en
plastique – Robinets en polyéthylène
(PE) – Méthode d'essai de résistance
aux cycles thermiques

Kunststoff-Rohrleitungssysteme –
Armaturen aus Polyethylen (PE) –
Prüfverfahren für die Beständigkeit
bei Temperaturwechsel

This European Standard was approved by CEN on 1997-03-28.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European standard has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems" the secretariat of which is held by NNI.

The material-dependent parameters and/or performance requirements are incorporated in the System Standard(s) concerned.

This standard is one of a series of standards on test methods which support System Standards for plastics piping systems and ducting systems.

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 November 1997, and conflicting national standards shall be withdrawn at the latest by November 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies a test method for the resistance of valves to thermal cycling.

This standard is applicable to polyethylene (PE) valves and valves with PE spigot-ends having a nominal outside diameter greater than 63 mm and intended for the transport of fluids.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter.

For dated references, subsequent amendments to, or revisions of, any of these publications apply to this European Standard only when incorporated in it by amendment or revision.

For undated references the latest edition of the publication referred to applies.

EN 837-1:1994	<i>Pressure gauges – Part 1: Bourdon tube pressure gauges – Dimensions, metrology, requirements and testing</i>
EN 28233:1991	<i>Thermoplastics valves – Torque – Test method</i>
ISO 5208:1993	<i>Industrial valves – Pressure testing of valves</i>

3 Principle

A valve, initially pressurised with air to 6 bar ¹⁾ is isolated and subjected to cyclic thermal stresses and the consequent pressure changes are measured.

The tightness is checked and actuation torque measured before and after the pressure test.

NOTE: It is assumed that the following test parameters are set by the standard making reference to this standard:

- a) the sampling procedure (see 5.1);
- b) the number of test pieces to be used (see 5.2);
- c) any test conditions, e.g. test pressure, test duration, which differ from those given in ISO 5208:1993 (see 6.2).

4 Apparatus

4.1 Temperature-controlled enclosure, in which the temperature can be time programmed at constant or variable values between -20 °C and +60 °C, to within ± 2 °C. The temperature gradient shall be capable of being set at about 1 °C/min.

4.2 Pressure plotter(s), with a range and scale suitable for the test pressure required for the valve to be tested, of accuracy class 1,5 in accordance with EN 837-1:1994.

¹⁾ 1 bar = 10^5 N/m² = 0,1 MPa