Plastics piping systems - Thermoplastics pipes and associated fittings for hot and cold water - Test method for resistance of joints to pressure cycling

Plastics piping systems - Thermoplastics pipes and associated fittings for hot and cold water - Test method for resistance of joints to pressure cycling

EESTI STANDARDI EESSÕNA

Käesolev Eesti standard EVS-EN 12295:2000 sisaldab Euroopa standardi EN 12295:1999 ingliskeelset teksti. Käesolev dokument on jõustatud 18.02.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 12295:2000 consists of the English text of the European standard EN 12295:1999. This document is endorsed on 18.02.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

NATIONAL FOREWORD

Käsitlusala: This standard specifies a method for testing the resistance of joints to pressure cycling. It is applicable to piping systems based on rigid or flexible thermoplastics pipes intended to be used in hot and cold water applications.	**Scope:** This standard specifies a method for testing the resistance of joints to pressure cycling. It is applicable to piping systems based on rigid or flexible thermoplastics pipes intended to be used in hot and cold water applications.

ICS 23.040.20, 23.040.45

Võtmesõnad: cold water, cyclic tests, hot water, joining, pipe fittings, plastic tubes, pressure pipes, pressure resistance, pressure tests, thermoplastic resins, water pipelines

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12295

September 1999

ICS 23.040.20; 23.040.45

English version

Plastics piping systems

Thermoplastics pipes and associated fittings for hot and cold water

Test method for resistance of joints to pressure cycling

Systèmes de canalisations en plastique – Tubes thermoplastiques et raccords associés pour installation d'eau chaude et froide sous pression – Méthode d'essai de résistance des assemblages à cycles de pression

Kunststoff-Rohrleitungssysteme – Rohre aus Thermoplasten und zugehörige Formstücke für Warm- und Kaltwasser – Prüfverfahren für die Beständigkeit von Verbindungen gegen Druckwechselbeanspruchung

This European Standard was approved by CEN on 1998-12-13.

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

Ref. No. EN 12295 : 1999 E

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.

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 1999, and conflicting national standards shall be withdrawn at the latest by March 2000.

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.

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.

1 Scope

This standard specifies a method for testing the resistance of joints to pressure cycling. It is applicable to piping systems based on rigid or flexible thermoplastics pipes intended to be used in hot and cold water applications.

2 Principle

An assembly of pipes and fittings is subjected to pressure cycling in air or water between two positive pressure limits via water while being maintained at a specified temperature and inspected for leakage.

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

a) the test temperature (see 3.3 and 5.2);
b) the number of test pieces (see 4.2);
c) the test pressure limits (see 6.1);
d) the duration of one cycle (see 6.1);
e) the number of cycles (see 6.2).

3 Apparatus

3.1 Pressurizing device, capable of applying and regulating the water pressure in the test piece to a sinusoidal form between pressure limits as specified in the referring standard.

NOTE: It may be necessary to compensate for any differences between the pressure at the position of the test piece and the pressure indicated at any other measuring point.

3.2 Pressure measurement device, capable of measuring the water pressure in the test piece with an accuracy of ± 5 %. The device measurement shall be capable of producing a record of the sinusoidal wave form.

NOTE: It may be necessary to compensate for any differences between the pressure at the position of the test piece and the pressure indicated at any other measuring point.

3.3 Test chamber, capable of maintaining the specified test temperature within ± 1 K, unless testing in the range (23 ± 5) °C, in which case the permitted deviations shall be ± 2 K.

3.4 Thermometer(s), capable of checking conformity to the specified test temperature (see 3.3).

3.5 End-sealing device, of appropriate size and sealing method for sealing the non-jointed end of the test piece. The device shall be restrained in a manner that does not exert longitudinal forces on the joints.

3.6 A typical test arrangement is shown in Figure 1.