

**Plasttorustikusüsteemid.
Klaassarrusega termokõvenevast
plastist torud. Spetsiaalse
nimiringjäikuse kindlaksmääramine**

Plastics piping systems - Glass-reinforced
thermosetting plastics (GRP) pipes - Determination
of initial specific ring stiffness

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1228:1999 sisaldab Euroopa standardi EN 1228:1996 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 1228:1999 consists of the English text of the European standard EN 1228:1996.</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>
--	---

<p>Käsitlusala:</p> <p>Käesolev standard esitab meetodid klaassarrusega termokõvenevate torude spetsiaalse nimiringjäikuse määramiseks. Esitatud on kaks meetodit ja kindlaksmääratud läbipainde piiride raames kehtivad mõlemad võrdselt ning neid võib kasutada mistahes läbimõõdu korral.</p>	<p>Scope:</p>
---	----------------------

ICS 83.140.30

Võtmesõnad: jäikus, klaassarrusplastid, mehaaniliste omaduste teimid, mõõtmed, painduvus, plasttorud, sarrusplastid, termokõvenevad vaigud, torustikud

ICS 23.040.20

Descriptors: Pipes, plastics, GRP, ring stiffness, testing.

English version

Plastics piping systems

**Glass-reinforced thermosetting plastics (GRP) pipes
Determination of initial specific ring stiffness**

Systèmes de canalisations en plastique;
tubes en plastique thermodurcissable
renforcé de verre (PRV); détermination de
la rigidité annulaire spécifique initiale

Kunststoff-Rohrleitungssysteme; Rohre
aus glasfaserverstärkten duroplastischen
Kunststoffen (GFK); Ermittlung der
spezifischen Anfangs-Ringsteifigkeit

This European Standard was approved by CEN on 1996-01-04.

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.

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 Central Secretariat has the same status as the official versions.

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

This standard is based on the Draft International Standard ISO/DIS 7685 "Pipes and fittings of glass-fibre reinforced plastics (GRP) - Determination of specific ring stiffness of pipes - Test methods" prepared by the International Organization for Standardization (ISO). It is a modification of ISO/DIS 7685.2 for reasons of possible applicability to test conditions and alignment with texts of other standards on test methods.

The modifications are:

- test parameters (pressure, time, temperature) are not specified;
- material-dependent or performance requirements are not given;
- editorial changes have been introduced.

The material-dependent test parameters and/or performance requirements are incorporated in the referring standard.

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 december 1996, and conflicting national standards shall be withdrawn at the latest by december 1996.

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

1 Scope

This standard specifies methods for determining the initial specific ring stiffness of glass-reinforced thermosetting plastics (GRP) pipes. Two methods are given and within the specified deflection limits each is equally valid and may be used for any diameter.

2 Definitions

For the purposes of this standard, the following definitions apply:

2.1 compressive load (F): The load applied to a pipe to cause a diametric deflection.

It is expressed in newtons.

2.2 deflection (y): The change in diameter of a pipe in response to a diametric compressive load (see 2.1).

It is expressed in metres.

2.3 relative deflection (y/d_m): The ratio of the deflection, y , (see 2.2), to the mean diameter of the pipe, d_m , (see 2.4).

2.4 mean diameter (d_m): The diameter of the circle corresponding with the middle of the pipe wall cross section.

It is given, in metres, by either of the following equations:

$$d_m = d_i + e$$

$$d_m = d_e - e$$

where:

d_i is the average of the measured internal diameters (see 5.3.3), in metres;

d_e is the average of the measured external diameters (see 5.3.3), in metres;

e is the average of the measured wall thicknesses of the pipe (see 5.3.2), in metres.

2.5 specific ring stiffness (S): A physical characteristic of the pipe which is a measure of the resistance to ring deflection under external load.