

**Plasttorustikusüsteemid.
Klaassarrusega termokõvenevast
plastist torud. Pikaajalise suhtelise
lubatud ringdeformatsiooni
kindlaksmääramine märgade tingimuste
korral**

Plastics piping systems - Glass-reinforced
thermosetting plastics (GRP) pipes - Determination
of the long-term ultimate relative ring deflection
under wet conditions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1227:1999 sisaldab Euroopa standardi EN 1227:1997 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 1227:1999 consists of the English text of the European standard EN 1227:1997.</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 esitab meetodi klaassarrusega plasttorude pikaajalise suhtelise lubatud ringdeformatsiooni kindlaksmääramiseks ekstrapoleerimise teel märgade tingimuste korral. Esitatud on kaks laadimismeetodit, sõltuvalt sellest, kas kasutatakse plaate või põikvardaid.</p>	<p>Scope:</p>
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Võtmesõnad: klaassarrusplastid, mehaaniliste omaduste teimid, pikaajaline, pikaajaline lubatud ringdeformatsioon, plasttorud, sarrusplastid, termokõvenevad vaigud, testimistingimused, torustikud

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

English version

Plastics piping systems

Glass-reinforced thermosetting plastics (GRP) pipes

Determination of the long-term ultimate relative ring
deflection under wet conditions

Systèmes de canalisations en plastique – Tubes en plastique thermodurcissable renforcé de verre (PRV) – Détermination de la déflexion annulaire relative ultime, à long terme, en conditions mouillées

Kunststoff-Rohrleitungssysteme – Rohre aus glasfaserverstärkten duroplastischen Kunststoffen (GFK) – Ermittlung der relativen Langzeit-Ringverformbarkeit unter Feuchteinfluß

This European Standard was approved by CEN on 1997-08-16.

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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.

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CEN

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

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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 proposal for an International Standard ISO/DP 10471.2 "Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Determination of the long-term ultimate ring deflection of pipes under wet conditions" prepared by the International Organization for Standardization (ISO). It is a modification of ISO/DP 10471.2 for reasons of possible applicability to other test conditions and alignment with texts of other standards on test methods.

The modifications are:

- the slope of the logarithm (lg) of the vertical deflection versus lg [time] is not used as a failure criterion;
- test parameters 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.

Annex A, which is normative, is an example using the procedures described in 8.5.

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 June 1998, and conflicting national standards shall be withdrawn at the latest by June 1998.

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 method for determining by extrapolation the long-term ultimate relative ring deflection of glass-reinforced plastics (GRP) pipes under wet conditions.

Two methods of loading are given, depending upon the use of plates or beam bars.

NOTE: Either method may be used for measurements of relative deflection up to 28 %. When it is expected that this level is exceeded then the procedure is limited to the use of beam bars.

2 Normative references

This 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 standard only when incorporated in it by amendment or revision.

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

EN 705:1994 *Plastics piping systems - Glass-reinforced plastics (GRP) pipes and fittings - Methods for regression analyses and their use*

3 Definitions

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

3.1 vertical compressive load (F): The vertical load applied to a horizontal pipe to cause a vertical deflection.

It is expressed in newtons.

3.2 vertical deflection (y): The vertical change in diameter of a horizontal pipe in response to a vertical compressive load.

It is expressed in metres.

3.3 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: