

**Plasttorustikusüsteemid.
Klaassarrusega termokõvenevast
plastist torud. Nähtava ringsuunalise
nimitõmbetugevuse kindlaksmääramine**

Plastics piping systems - Glass-reinforced
thermosetting plastics (GRP) pipes - Determination
of the apparent initial circumferential tensile strength

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1394:1999 sisaldab Euroopa standardi EN 1394:1996+AC: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 1394:1999 consists of the English text of the European standard EN 1394:1996+AC: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: Käesolev standard esitab kuus testimismeetodit nähtava ringsuunalise nimitõmbetugevuse kindlaksmääramiseks klaassarrusega termokõvenevate termoplasttorude korral pikkusühiku kohta.</p>	<p>Scope:</p>
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ICS 23.040.20

Võtmesõnad: arvutamine, kindlaksmääramine, klaas, murdmisteimid, plasttorud, sarrusplastid, termokõvenevad vaigud, testimine, torustikud, tõmbetugevus

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Descriptors: Plastics, piping systems, testing.

English version

Plastics piping systems

**Glass-reinforced thermosetting plastics (GRP) pipes
Determination of the apparent initial circumferential tensile strength**

Systèmes de canalisations en plastiques –
Tubes en plastiques thermodurcissables
renforcés de verre (PRV) – Détermination
de la résistance en traction circonféren-
cielle initiale apparente

Kunststoff-Rohrleitungssysteme – Rohre
aus glasfaserverstärkten duroplastischen
Kunststoffen (GFK) – Bestimmung der
scheinbaren Anfangszugfestigkeit in Um-
fangsrichtung

This European Standard was approved by CEN on 1996-05-09.

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 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.

This standard is based on the draft International Standard ISO/DP 8521.2 "Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Test method for determination of the initial apparent circumferential tensile strength", prepared by the International Organization for Standardization (ISO). It is a modification of ISO/DP 8521.2 for reasons of possible applicability to other test conditions and alignment with texts of other standards on test methods.

The modifications are as follows:

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

The material-dependent test parameters and 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 March 1997, and conflicting national standards shall be withdrawn at the latest by March 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies six test methods for the determination of the apparent initial tensile strength in the circumferential direction per unit length of glass-reinforced thermosetting plastics (GRP) pipes.

The burst test (method A) is suitable for all types and sizes of pipes. It is the preferred method for pipes up to and including DN 600. For pipes larger than DN 600 one of the following methods may be preferred.

The split disc test (method B) may not be suitable for pipes with helically wound reinforcing layers.

The strip test (method C) and the modified strip test (method D) are suitable for pipes with a nominal size of DN 600 and greater, and are applicable where the split disc test is not suitable.

The restrained strip test (method E) is suitable for all types of pipes with a nominal size greater than DN 600.

The notched plate test (method F) is primarily intended for use for helically wound pipes of nominal size greater than DN 600 with a winding angle other than approximately 90°. This method may be used also for other types of pipe with nominal sizes greater than DN 600.

Results from one method are not necessarily equal to the results derived from any of the alternative methods. However, all methods have equal validity.

2 Definitions

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

2.1 **apparent initial circumferential strength** (σ_{CA}^* , σ_{CB}^* , σ_{CC}^* , σ_{CD}^* , σ_{CE}^* , σ_{CF}^*): Ultimate circumferential tensile force per unit length in the circumferential direction (the upper-case subscripts denote the method of test used).

It is expressed in newtons per millimetre of circumference.