Thermoplastics pipes - Determination of tensile properties - Part 1: General test method

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 6259-1:2002 sisaldab Euroopa standardi EN ISO 6259-1:2001 ingliskeelset teksti. Käesolev dokument on jõustatud 19.04.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 6259-1:2002 consists of the English text of the European standard EN ISO 6259-1:2001. This document is endorsed on 19.04.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This part of EN ISO 6259 specifies a methos of determining the tensile properties of thermoplastics pipes, including in particular the following properties: stress at yield point; elogation at break.	**Scope:** This part of EN ISO 6259 specifies a methos of determining the tensile properties of thermoplastics pipes, including in particular the following properties: stress at yield point; elogation at break.

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Võtmesõnad: iseloomulikud omadused, kindlaksmääramine, pikenemine murdumisel, plasttorud, torustikud, tõmbepinge, tõmbeteimid

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English version

Thermoplastics pipes – Determination of tensile properties

Part 1: General test method
(ISO 6259-1 : 1997)

Tubes en matières thermoplastiques – Détermination des caractéristiques en traction – Partie 1: Méthode générale d'essai (ISO 6259-1 : 1997)

Rohre aus Thermoplasten – Bestimmung der Eigenschaften im Zugversuch – Teil 1: Allgemeines Prüfverfahren (ISO 6259-1 : 1997)

This European Standard was approved by CEN on 2001-10-04.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre 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 Management Centre has the same status as the official versions.

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CEN

European Committee for Standardization
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Europäisches Komitee für Normung

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Foreword

International Standard

ISO 6259-1 : 1997 Thermoplastics pipes – Determination of tensile properties – Part 1: General test method, which was prepared by ISO/TC 138 'Plastics pipes, fittings and valves for the transport of fluids' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 155 'Plastics piping systems and ducting systems', the Secretariat of which is held by NEN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by April 2002 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

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.

Endorsement notice

The text of the International Standard ISO 6259-1 : 1997 was approved by CEN as a European Standard without any modification.

Introduction

This part of ISO 6259 specifies a short-term tensile test method for determining the tensile properties of thermoplastics pipes.

It can provide data for further testing for the purpose of research and development.

It cannot be regarded as significant for applications in which the conditions of application of the force differ considerably with those in this test method, such applications requiring the appropriate impact, creep and fatigue tests.

The tests of tensile properties should be principally regarded as tests of material in the form of pipe. The results can be useful as a material process control test, but are not a quantitative assessment of long term pipe performance.

ISO 6259 has been drawn up on the basis of ISO 527.

For ease of use, it has been thought preferable to draw up a complete document that can be used for determining the tensile properties of thermoplastics pipes. For greater detail, reference should be made to ISO 527.

It should however be noted that ISO 527 is applicable to materials in sheet form, whereas ISO 6259 is applicable to materials in pipe form.

As it was considered essential to test the pipes as supplied, i.e. without reduction in thickness, difficulties are those in the choice of test piece.

ISO 527 specifies test pieces a few millimetres thick, whereas the thickness of a pipe can be up to around 60 mm. This is why certain changes have been made on this point.

For thin-walled pipes, the test piece can be obtained by die cutting, while for thick pipes, it can be obtained only by machining.

At present, ISO 6259 comprises three parts. The first part gives the general conditions under which the tensile properties of thermoplastics pipes are to be determined. The other two parts provide, respectively, particular information on the execution of tests on pipe made from different materials (see the foreword).

The basic specifications for the various materials are given in informative annexes in the relevant parts.

1 Scope

This part of ISO 6259 specifies a method of determining the tensile properties of thermoplastics pipes, including in particular the following properties:

— stress at yield point;

— elongation at break.

This part of ISO 6259 is applicable to all types of thermoplastics pipe, regardless of their intended use.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 6259. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 6259 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1167:1996, *Thermoplastics pipes for the conveyance of fluids — Resistance to internal pressure — Test method.*

ISO 2602:1980, *Statistical interpretation of test results — Estimation of the mean — Confidence interval.*

ISO 5893:1993, *Rubber and plastics test equipment — Tensile, flexural and compression types (constant rate of traverse) — Description.*

ISO 6259-2:1997, *Thermoplastics pipes — Determination of tensile properties — Part 2: Pipes made of unplasticized poly(vinyl chloride) (PVC-U), chlorinated poly(vinyl chloride) (PVC-C) and high-impact poly(vinyl chloride) (PVC-HI).*

ISO 6259-3:1997, *Thermoplastics pipes — Determination of tensile properties — Part 3: Polyolefin pipes.*

3 Principle

Test pieces of given shape and dimensions are obtained from a thermoplastics pipe, in the longitudinal direction, by cutting or machining.

The tensile properties are measured using a test machine under specified conditions.