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Plastid. Ülikõrge molekulmassiga polüetüleenist (ultra-high-molecularweight polyethylene) (PE-UHMW) vormitavad materjalid ja ekstrusioonimaterjalid. Osa 2: Proovikehade ettevalmistamine ja omaduste määramine

Plastics - Ultra-high-molecular-weight polyethylene (PE-UHMW) moulding and extrusion materials - Part 2: Preparation of test specimens and determination of properties

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 11542-2:2000 sisaldab Euroopa standardi EN ISO 11542-2:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 20.03.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 11542-2:2000 consists of the English text of the European standard EN ISO 11542-2:1998.</p> <p>This document is endorsed on 20.03.2000 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: See osa standardist kirjeldab proovikehade ettevalmistamise meetodeid ja katsemeetodeid, mida kasutatakse PE-UHMW survevalu ja ekstrusioonimaterjalide omaduste kindlaksmääramisel.</p>	<p>Scope:</p>
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ICS 83.080.20

Võtmesõnad: ekstrusioonimaterjalid, määramine, omadused, plastid, polüetüleen, proovikeha ettevalmistus, termoplastsed vaigud, testimine, testitavad proovikehad, vormitavad materjalid (vormimismaterjalid)

ICS 83.080.20

Descriptors: Plastics, polyethylene, moulding materials, specimens, testing.

English version

Plastics

Ultra-high-molecular-weight polyethylene
(PE-UHMW) moulding and extrusion materials

Part 2: Preparation of test specimens and determination of properties
(ISO 11542-2 : 1998)

Plastiques – Matériaux à base de polyéthylène à très haute masse moléculaire (PE-UHMW) pour moulage et extrusion – Partie 2: Préparation des éprouvettes et détermination des propriétés (ISO 11542-2 : 1998)

Kunststoffe – Ultrahochmolekulare Polyethylen (PE-UHMW)-Formmassen – Teil 2: Herstellung von Probekörpern und Bestimmung von Eigenschaften (ISO 11542-2 : 1998)

This European Standard was approved by CEN on 1998-11-08.

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

Foreword

International Standard

ISO 11542-2 : 1998 Plastics – Ultra-high-molecular-weight polyethylene (PE-UHMW) moulding and extrusion materials – Part 2: Preparation of test specimens and determination of properties, which was prepared by ISO/TC 61 'Plastics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 249 'Plastics', the Secretariat of which is held by IBN, 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 May 1999 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 11542-2 : 1998 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative)

1 Scope

This part of ISO 11542 specifies the methods of preparation of test specimens and the test methods to be used in determining the properties of PE-UHMW moulding and extrusion materials. Requirements for handling test material and for conditioning both the test material before moulding and the specimens before testing are given here.

Procedures and conditions for the preparation of test specimens and procedures for measuring properties of the materials from which these specimens are made are given. Properties and test methods which are suitable and necessary to characterize PE-UHMW moulding and extrusion materials are listed.

The properties have been selected from the general test methods in ISO 10350-1. Other test methods in wide use for or of particular significance to these moulding and extrusion materials are also included in this part of ISO 11542, as are the designatory properties specified in part 1.

In order to obtain reproducible and comparable test results, it is necessary to use the methods of preparation and conditioning, the specimen dimensions and the test procedures specified herein. Values determined will not necessarily be identical to those obtained using specimens of different dimensions or prepared using different procedures.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 11542. 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 11542 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 62:—¹⁾, *Plastics — Determination of water absorption.*

ISO 75-1:1993, *Plastics — Determination of temperature of deflection under load — Part 1: General test method.*

ISO 75-2:1993, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite.*

ISO 178:1993, *Plastics — Determination of flexural properties.*

1) To be published. (Revision of ISO 62:1980)

- ISO 179-1:—²⁾, *Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test.*
- ISO 291:1997, *Plastics — Standard atmospheres for conditioning and testing.*
- ISO 293:1986, *Plastics — Compression moulding test specimens of thermoplastic materials.*
- ISO 527-1:1993, *Plastics — Determination of tensile properties — Part 1: General principles.*
- ISO 527-2:1993, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics.*
- ISO 527-4:1997, *Plastics — Determination of tensile properties — Part 4: Test conditions for isotropic and orthotropic fibre-reinforced plastics composites.*
- ISO 899-1:1993, *Plastics — Determination of creep behaviour — Part 1: Tensile creep.*
- ISO 1183:1987, *Plastics — Methods for determining the density and relative density of non-cellular plastics.*
- ISO 1210/IEC 60695-11-10:—³⁾, *Determination of the burning behaviour of horizontal and vertical specimens in contact with a small-flame (50 W) ignition source.*
- ISO 1628-3:1991, *Plastics — Determination of viscosity number and limiting viscosity number — Part 3: Polyethylenes and polypropylenes.*
- ISO 2818:1994, *Plastics — Preparation of test specimens by machining.*
- ISO 3146:—⁴⁾, *Plastics — Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers by capillary tube and polarizing-microscope methods.*
- ISO 3167:1993, *Plastics — Multipurpose test specimens.*
- ISO 4589-1:1996, *Plastics — Determination of burning behaviour by oxygen index — Part 1: Guidance.*
- ISO 4589-2:1996, *Plastics — Determination of burning behaviour by oxygen index — Part 2: Ambient-temperature test.*
- ISO 8256:1990, *Plastics — Determination of tensile-impact strength.*
- ISO 10350:1993, *Plastics — Acquisition and presentation of comparable single-point data.*
- ISO 11542-1:1994, *Plastics — Ultra-high-molecular-weight polyethylene (PE-UHMW) moulding and extrusion materials — Part 1: Designation system and basis for specifications.*
- IEC 60093:1980, *Methods of test for volume resistivity and surface resistivity of solid electrical insulating materials.*
- IEC 60112:1979, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions.*
- IEC 60243-1:1998, *Electrical strength of insulating materials — Test methods — Part 1: Tests at power frequencies.*
- IEC 60250:1969, *Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including metre wavelengths.*
- IEC 60296:1982, *Specification for unused mineral insulating oils for transformers and switchgear.*

2) To be published. (Revision of ISO 179:1993)

3) To be published. (Revision of ISO 1210:1992)

4) To be published. (Revision of ISO 3146:1985)