Irish Standard
I.S. EN ISO 899-1:2003&A1:2015

Plastics - Determination of creep behaviour - Part 1: Tensile creep (ISO 899-1:2003)

I.S. EN ISO 899-1:2003&A1:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

EN ISO 899-1:2003/A1:2015

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 899-1:2003/A1

March 2015

ICS 83.080.01

English Version

Plastics - Determination of creep behaviour - Part 1: Tensile creep - Amendment 1 (ISO 899-1:2003/Amd 1:2015)

Plastiques - Détermination du comportement au fluage - Partie 1: Fluage en traction - Amendement 1 (ISO 899-1:2003/Amd 1:2015)

Kunststoffe - Bestimmung des Kriechverhaltens - Teil 1: Zeitstand-Zugversuch - Änderung 1 (ISO 899-1:2003/Amd 1:2015)

This amendment A1 modifies the European Standard EN ISO 899-1:2003; it was approved by CEN on 17 January 2015.

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Ref. No. EN ISO 899-1:2003/A1:2015 E

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Foreword

This document (EN ISO 899-1:2003/A1:2015) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 “Plastics” the secretariat of which is held by NBN.

This Amendment to the European Standard EN ISO 899:2003 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2015, and conflicting national standards shall be withdrawn at the latest by September 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 899-1:2003/Amd 1:2015 has been approved by CEN as EN ISO 899-1:2003/A1:2015 without any modification.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 899-1

June 2003

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English version

Plastics - Determination of creep behaviour - Part 1: Tensile creep (ISO 899-1:2003)

Plastiques - Détermination du comportement au fluage - Partie 1: Fluage en traction (ISO 899-1:2003)

Kunststoffe - Bestimmung des Kriechverhaltens - Teil 1: Zeitstand-Zugversuch (ISO 899-1:2003)

This European Standard was approved by CEN on 23 May 2003.

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Foreword

This document (EN ISO 899-1:2003) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

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 2003, and conflicting national standards shall be withdrawn at the latest by December 2003.

This document supersedes EN ISO 899-1:1996.

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

Endorsement notice

The text of ISO 899-1:2003 has been approved by CEN as EN ISO 899-1:2003 without any modifications.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

Annex ZA
(normative)

Normative references to international publications with their relevant European publications

This European 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 European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

Publication	Year	Title	EN	Year
ISO 62	1999	Plastics — Determination of water absorption	EN ISO 62	1999
ISO 291	1997	Plastics — Standard atmospheres for conditioning and testing	EN ISO 291	1997
ISO 472	1999	Plastics — Vocabulary	EN ISO 472	2001
ISO 527-1	1993	Plastics — Determination of tensile properties — Part 1: General principles	EN ISO 527-1	1996
ISO 527-2	1993	Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics	EN ISO 527-2	1996
ISO 10350-1	1998	Plastics — Acquisition and presentation of comparable single-point data — Part 1: Moulding materials	EN ISO 10350-1	2000
ISO 11403-1	2001	Plastics — Acquisition and presentation of comparable multipoint data — Part 1: Mechanical properties	EN ISO 11403-1	2003

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INTERNATIONAL STANDARD

ISO 899-1

Second edition
2003-06-01

Plastics — Determination of creep behaviour —

Part 1: Tensile creep

Plastiques — Détermination du comportement au fluage —

Partie 1: Fluage en traction

Reference number
ISO 899-1:2003(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 899-1 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical properties*.

This second edition cancels and replaces the first edition (ISO 899-1:1993), which has been technically revised.

ISO 899 consists of the following parts, under the general title *Plastics — Determination of creep behaviour*:

— *Part 1: Tensile creep*

— *Part 2: Flexural creep by three-point loading*

Plastics — Determination of creep behaviour —

Part 1: Tensile creep

1 Scope

1.1 This part of ISO 899 specifies a method for determining the tensile creep of plastics in the form of standard test specimens under specified conditions such as those of pretreatment, temperature and humidity.

1.2 The method is suitable for use with rigid and semi-rigid non-reinforced, filled and fibre-reinforced plastics materials (see ISO 472 for definitions) in the form of dumb-bell-shaped test specimens moulded directly or machined from sheets or moulded articles.

1.3 The method is intended to provide data for engineering-design and research and development purposes. Data for engineering-design purposes requires the use of extensometers to measure the gauge length of the specimen. Data for research or quality-control purposes may use the change in distance between the grips (nominal extension).

1.4 Tensile creep may vary significantly with differences in specimen preparation and dimensions and in the test environment. The thermal history of the test specimen can also have profound effects on its creep behaviour (see Annex A). Consequently, when precise comparative results are required, these factors must be carefully controlled.

1.5 If tensile-creep properties are to be used for engineering-design purposes, the plastics materials should be tested over a broad range of stresses, times and environmental conditions.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 62:1999, *Plastics — Determination of water absorption*

ISO 291:1997, *Plastics — Standard atmospheres for conditioning and testing*

ISO 472:1999, *Plastics — Vocabulary*

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 10350-1:1998, *Plastics — Acquisition and presentation of comparable single-point data — Part 1: Moulding materials*