Plastics - Determination of creep behaviour - Part 2: Flexural creep by three-point loading

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 899-2:2004 sisaldab Euroopa standardi EN ISO 899-2:2003 ingliskeelset teksti. Käesolev dokument on jõustatud 23.11.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 899-2:2004 consists of the English text of the European standard EN ISO 899-2:2003. This document is endorsed on 23.11.2004 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 ISO 899 specifies a method for determining the flexural creep of plastics in the form of standard test specimens under specified conditions such as those of pretreatment, temperature and humidity. It applies only to a simple freely supported beam loaded at mid-span (three-point-loading test).	**Scope:** This part of ISO 899 specifies a method for determining the flexural creep of plastics in the form of standard test specimens under specified conditions such as those of pretreatment, temperature and humidity. It applies only to a simple freely supported beam loaded at mid-span (three-point-loading test).

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Võtmesõnad:

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English version

Plastics – Determination of creep behaviour

Part 2: Flexural creep by three-point loading (ISO 899-2 : 2003)

Plastiques – Détermination du comportement au fluage – Partie 2: Fluage en flexion par mise en charge en trois points (ISO 899-2 : 2003)

Kunststoffe – Bestimmung des Kriechverhaltens – Teil 2: Zeitstand-Biegeversuch bei Dreipunkt-Belastung (ISO 899-2 : 2003)

This European Standard was approved by CEN on 2003-05-23.

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 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.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

Management Centre: rue de Stassart 36, B-1050 Brussels

Ref. No. EN ISO 899-2 : 2003 E

Foreword

International Standard

ISO 899-2 : 2003 Plastics – Determination of creep behaviour – Part 2: Flexural creep by three-point loading, 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 December 2003 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 899-2 : 2003 was approved by CEN as a European Standard without any modification.

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

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1 Scope

1.1 This part of ISO 899 specifies a method for determining the flexural creep of plastics in the form of standard test specimens under specified conditions such as those of pretreatment, temperature and humidity. It applies only to a simple freely supported beam loaded at mid-span (three-point-loading test).

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.

NOTE The method may be unsuitable for certain fibre-reinforced materials due to differences in fibre orientation.

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 Flexural 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 flexural-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.

1.6 The method may not be suitable for determining the flexural creep of rigid cellular plastics (attention is drawn in this respect to ISO 1209-1, *Cellular plastics, rigid — Flexural tests — Part 1: Bending test*, and ISO 1209-2, *Cellular plastics, rigid — Flexural tests — Part 2: Determination of flexural properties*).

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 178:2001, *Plastics — Determination of flexural properties*

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

ISO 472:1999, *Plastics — Vocabulary*