

This is a preview of "ISO 899-1:2017". [Click here to purchase the full version from the ANSI store.](#)

Third edition
2017-09

Plastics — Determination of creep behaviour —

Part 1: Tensile creep

*Plastiques — Détermination du comportement au fluage —
Partie 1: Fluage en traction*



Reference number
ISO 899-1:2017(E)

© ISO 2017

This is a preview of "ISO 899-1:2017". Click [here](#) to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

This is a preview of "ISO 899-1:2017". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Apparatus	3
5 Test specimens	4
6 Procedure	4
6.1 Conditioning and test atmosphere.....	4
6.2 Measurement of test-specimen dimensions.....	5
6.3 Mounting the test specimens.....	5
6.4 Selection of stress value.....	5
6.5 Loading procedure.....	5
6.5.1 Preloading.....	5
6.5.2 Loading.....	5
6.6 Extension-measurement schedule.....	5
6.7 Time measurement.....	5
6.8 Temperature and humidity control.....	6
6.9 Measurement of recovery rate (optional).....	6
7 Expression of results	6
7.1 Method of calculation.....	6
7.1.1 Tensile-creep modulus, E_t	6
7.1.2 Nominal tensile-creep modulus, E^*_t	6
7.2 Presentation of results.....	7
7.2.1 Creep curves.....	7
7.2.2 Creep-modulus/time curves.....	7
7.2.3 Isochronous stress-strain curves.....	8
7.2.4 Three-dimensional representation.....	8
7.2.5 Creep-to-rupture curves.....	8
7.3 Precision.....	9
8 Test report	9
Annex A (informative) Physical-ageing effects on the creep of polymers	10
Bibliography	14

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical behaviour*.

This third edition cancels and replaces the second edition (ISO 899-1:2003), of which it constitutes a minor revision to update the normative references in [Clause 2](#). It also incorporates the Amendment ISO 899-1:2003/Amd.1:2015.

A list of all parts in the ISO 899 series can be found on the ISO website.