

This is a preview of "ISO 6721-12:2009". [Click here to purchase the full version from the ANSI store.](#)

First edition
2009-12-01

Plastics — Determination of dynamic mechanical properties —

Part 12:

Compressive vibration — Non-resonance method

*Plastiques — Détermination des propriétés mécaniques dynamiques —
Partie 12: Vibration en compression — Méthode hors résonance*



Reference number
ISO 6721-12:2009(E)

© ISO 2009

This is a preview of "ISO 6721-12:2009". [Click here to purchase the full version from the ANSI store.](#)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2009

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 6721-12:2009". 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	2
4 Principle.....	2
5 Test device	2
5.1 Loading assembly	2
5.2 Electronic data-processing equipment.....	2
5.3 Temperature measurement and control.....	3
5.4 Devices for measuring test specimen dimensions.....	3
6 Test specimens.....	4
6.1 Shape and dimensions	4
6.2 Preparation.....	4
7 Number of test specimens.....	4
8 Conditioning	4
9 Procedure	4
9.1 Test atmosphere.....	4
9.2 Measuring the dimensions of and mounting the test specimen	4
9.3 Varying the temperature	5
9.4 Performing the test.....	5
10 Expression of results	5
10.1 Symbols.....	5
10.2 Calculation of the compressive storage modulus E'	6
10.3 Calculation of the loss factor $\tan\delta$	6
10.4 Calculation of the compressive loss modulus E''	6
10.5 Presentation of data as a function of temperature	6
11 Precision.....	6
11.1 Test report.....	6
Bibliography.....	7

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 6721-12 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical properties*.

ISO 6721 consists of the following parts, under the general title *Plastics — Determination of dynamic mechanical properties*:

- *Part 1: General principles*
- *Part 2: Torsion-pendulum method*
- *Part 3: Flexural vibration — Resonance-curve method*
- *Part 4: Tensile vibration — Non-resonance method*
- *Part 5: Flexural vibration — Non-resonance method*
- *Part 6: Shear vibration — Non-resonance method*
- *Part 7: Torsional vibration — Non-resonance method*
- *Part 8: Longitudinal and shear vibration — Wave-propagation method*
- *Part 9: Tensile vibration — Sonic-pulse propagation method*
- *Part 10: Complex shear viscosity using a parallel-plate oscillatory rheometer*
- *Part 11: Glass transition temperature*
- *Part 12: Compressive vibration — Non-resonance method*