

This is a preview of "ISO 11357-7:2022". Click here to purchase the full version from the ANSI store.

Third edition 2022-03

Plastics — Differential scanning calorimetry (DSC) —

Part 7:

Determination of crystallization kinetics



ISO 11357-7:2022(E)

This is a preview of "ISO 11357-7:2022". Click here to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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 CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

This is a preview of "ISO 11357-7:2022". Click here to purchase the full version from the ANSI store.

Foreword		Page
		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	2
5	Apparatus and materials	2
6	Test specimens	2
7	Test conditions and specimen conditioning	2
8	Calibration 8.1 Calibration in heating mode 8.2 Symmetry of temperature scale	2
9	Procedure 9.1 General 9.2 Loading the test specimen into the crucible 9.3 Insertion of the crucibles into the instrument 9.4 Melting of the polymer 9.5 Isothermal crystallization 9.6 Non-isothermal crystallization	
10	Expression of results 10.1 General 10.2 Methods of determination of crystallization kinetics 10.2.1 Isothermal crystallization 10.2.2 Non-isothermal crystallization	5 5 5
11	Precision	8
12	Test report	8
Ann	ex A (informative) Formulae for crystallization kinetics of polymers	9
	iography	

This is a preview of "ISO 11357-7:2022". Click here to purchase the full version from the ANSI store.

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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 5, *Physical-chemical properties*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 11357-7:2015), which has been technically revised.

The main changes are as follows:

- an indication of suitable substances for checking the symmetry of the temperature scale has been added:
- the procedure of determination of the start temperature of isothermal crystallization has been corrected;
- an approach for the dependence of the rate constant of the Nakamura equation on temperature has been added.

A list of all parts in the ISO 11357 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.