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Plastics - Differential scanning calorimetry (DSC) - Part 7: Determination of crystallization kinetics (ISO 11357-7:2015)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Plastics - Differential scanning calorimetry (DSC) - Part 7: Determination of crystallization kinetics (ISO 11357- 7:2015)

Plastiques - Analyse calorimétrique différentielle (DSC)
- Partie 7: Détermination de la cinétique de
cristallisation (ISO 11357-7:2015)

Kunststoffe - Dynamische Differenz-Thermoanalyse
(DSC) - Teil 7: Bestimmung der Kristallisationskinetik
(ISO 11357-7:2015)

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European foreword

This document (EN ISO 11357-7:2015) 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 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of an identical text or by endorsement, at the latest by March 2016, and conflicting national standards shall be withdrawn at the latest by March 2016.

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Endorsement notice

The text of ISO 11357-7:2015 has been approved by CEN as EN ISO 11357-7:2015 without any modification.

**Plastics — Differential scanning
calorimetry (DSC) —**

**Part 7:
Determination of crystallization
kinetics**

*Plastiques — Analyse calorimétrique différentielle (DSC) —
Partie 7: Détermination de la cinétique de cristallisation*





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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.

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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#).

The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 5, *Physical-chemical properties*.

This second edition cancels and replaces the first edition (ISO 11357-7:2002), which has been technically revised with the following changes:

- a) values to be recorded for isothermal crystallization revised, starting time of the isothermal step ($t = 0$) added (10.2.1), and [Figure 2](#) to [Figure 6](#) revised accordingly;
- b) Formula (A.1) and Formula (A.2) are corrected;
- c) dated references changed to undated references.

ISO 11357 consists of the following parts, under the general title *Plastics — Differential scanning calorimetry (DSC)*:

- *Part 1: General principles*
- *Part 2: Determination of glass transition temperature and glass transition step height*
- *Part 3: Determination of temperature and enthalpy of melting and crystallization*
- *Part 4: Determination of specific heat capacity*
- *Part 5: Determination of characteristic reaction-curve temperatures and times, enthalpy of reaction and degree of conversion*
- *Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT)*
- *Part 7: Determination of crystallization kinetics*

Plastics — Differential scanning calorimetry (DSC) —

Part 7:

Determination of crystallization kinetics

1 Scope

This part of ISO 11357 specifies two methods (isothermal and non-isothermal) for studying the crystallization kinetics of partially crystalline polymers using differential scanning calorimetry (DSC).

It is only applicable to molten polymers.

NOTE These methods are not suitable if the molecular structure of the polymer is modified during the test.

2 Normative references

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

ISO 472, *Plastics — Vocabulary*

ISO 11357-1, *Plastics — Differential scanning calorimetry (DSC) — Part 1: General principles*

ISO 11357-3, *Plastics — Differential scanning calorimetry (DSC) — Part 3: Determination of temperature and enthalpy of melting and crystallization*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN