

**Plastics - Differential scanning calorimetry (DSC) - Part
4: Determination of specific heat capacity (ISO
11357-4:2014)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 11357-4:2014 sisaldab Euroopa standardi EN ISO 11357-4:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 11357-4:2014 consists of the English text of the European standard EN ISO 11357-4:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

Plastics - Differential scanning calorimetry (DSC) - Part 4:
Determination of specific heat capacity (ISO 11357-4:2014)

Plastiques - Analyse calorimétrique différentielle (DSC) -
Partie 4: Détermination de la capacité thermique massique
(ISO 11357-4:2014)

Kunststoffe - Dynamische Differenz-Thermoanalyse (DSC) -
Teil 4: Bestimmung der spezifischen Wärmekapazität (ISO
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Foreword

This document (EN ISO 11357-4:2014) 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of an identical text or by endorsement, at the latest by December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.

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Endorsement notice

The text of ISO 11357-4:2014 has been approved by CEN as EN ISO 11357-4:2014 without any modification.

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Plastics — Differential scanning calorimetry (DSC) —

Part 4:

Determination of specific heat capacity

1 Scope

This part of ISO 11357 specifies methods for determining the specific heat capacity of plastics by differential scanning calorimetry.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for the application of this document. 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 80000-1, *Quantities and units — Part 1: General*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 472 and ISO 11357-1 and the following apply.

3.1

calibration material

material of known specific heat capacity

Note 1 to entry: Usually, α -alumina (such as synthetic sapphire) of 99,9 % or higher purity is used as the calibration material.

3.2

specific heat capacity (at constant pressure)

c_p

quantity of heat necessary to raise the temperature of unit mass of material by 1 K at constant pressure

Note 1 to entry: It is given by the following formula:

$$c_p = m^{-1}C_p = m^{-1}(dQ/dT)_p \quad (1)$$

where