



BSI Standards Publication

Plastics — Differential scanning calorimetry (DSC)

Part 2: Determination of glass transition temperature and glass transition step height

National foreword

This British Standard is the UK implementation of EN ISO 11357-2:2014. It is identical to ISO 11357-2:2013. It supersedes BS ISO 11357-2:2013, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/21, Testing of plastics.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Date	Text affected
30 April 2014	This corrigendum renumbers BS ISO 11357-2:2013 as BS EN ISO 11357-2:2014

English Version

**Plastics - Differential scanning calorimetry (DSC) - Part 2:
Determination of glass transition temperature and glass
transition step height (ISO 11357-2:2013)**

Plastiques - Analyse calorimétrique différentielle (DSC) -
Partie 2: Détermination de la température de transition
vitreuse et de la hauteur de palier de transition vitreuse
(ISO 11357-2:2013)

Kunststoffe - Dynamische Differenz-Thermoanalyse (DSC) -
Teil 2: Bestimmung der Glasübergangstemperatur und
Glasübergangsstufenhöhe (ISO 11357-2:2013)

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Foreword

The text of ISO 11357-2:2013 has been prepared by Technical Committee ISO/TC 61 “Plastics” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11357-2:2014 by 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of an identical text or by endorsement, at the latest by September 2014, and conflicting national standards shall be withdrawn at the latest by September 2014.

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Endorsement notice

The text of ISO 11357-2:2013 has been approved by CEN as EN ISO 11357-2:2014 without any modification.

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Plastics — Differential scanning calorimetry (DSC) —

Part 2:

Determination of glass transition temperature and glass transition step height

WARNING — The use of this part of ISO 11357 may involve hazardous materials, operations, or equipment. This part of ISO 11357 does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this part of ISO 11357 to establish appropriate health and safety practices and to determine the applicability of regulatory limitations prior to use.

1 Scope

This part of ISO 11357 specifies methods for the determination of the glass transition temperature and the step height related to the glass transition of amorphous and partially crystalline plastics.

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

3 Terms and definitions

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

3.1

glass transition

reversible change in an amorphous polymer or in amorphous regions of a partially crystalline polymer from (or to) a viscous or rubbery condition to (or from) a hard and relatively brittle one

3.2

glass transition temperature

T_g

characteristic value of the temperature range over which the glass transition takes place

Note 1 to entry: The assigned glass transition temperature (T_g) may vary, depending on the specific property and on the method and conditions selected to measure it.

3.3

glass transition step height

$\Delta c_p(T_g)$

difference in specific heat capacity at T_g

Note 1 to entry: See [Figure 1](#) and [Figure 2](#).

Note 2 to entry: For partially crystalline polymers, the glass transition step height is proportional to the amorphous content.