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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19466.2-2004

**Plastics -- Differential scanning calorimetry (DSC) -- Part 2:
Determination of glass transition temperature
(English Translation)**

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Foreword

GB/T 19466 Plastics - Differential Scanning Calorimetry (DSC) consists of the following 7 parts:

- Part 1: General Principles;
- Part 2: Determination of Glass Transition Temperature;
- Part 3: Determination of Temperature and Enthalpy of Melting and Crystallization;
- Part 4: Determination of Specific Heat Capacity;
- Part 5: Determination of Polymerization Temperature and/or Time and Polymerization Kinetics;
- Part 6: Determination of Oxidation Induction Time;
- Part 7: Determination of Crystallization Kinetics.

This Part is Part 2 of GB/T 19466.

This Part equivalently adopts ISO 11375-2:1999 Plastics - Differential Scanning Calorimetry (DSC) - Part 2: Determination of Glass Transition Temperature.

This Part equivalently translates ISO 11375-2:1999.

For the benefit of use, this Part made the following editorial modifications.

- a) Modify "this International Standard" into "this Standard";
- b) Delete the Foreword of the international standard;
- c) Replace the international standards listed in the normative references into the corresponding formulated (revised) Chinese standards. Delete the ISO 472 that is not quoted in the text;
- d) For guiding the use, add the identification symbols of "A" and "B" in the left and right parts of the Figure 1;
- e) Add the informative Annex A for reference when using;
- f) The Bibliography is not regarded as the Annex but a factor differed from the Annex.

The Annex A of this Part is informative.

This Part was proposed by China Petrol and Chemical Industry Association.

Plastics - Differential Scanning Calorimetry (DSC) -

Part 2: Determination of Glass Transition Temperature

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

1 Scope

This Part of GB/T 19466 specifies a method for the determination of the characteristic glass transition temperatures of amorphous and semi-crystalline plastics.

2 Normative References

The provisions in following documents become the provisions of this Part of GB/T

19466 through reference in this Part. For dated references, the subsequent

amendments (excluding corrigendum) or revisions do not apply to this Part, however, parties who reach an agreement based on this Part are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 19466.1-2004 Plastics - Differential Scanning Calorimetry (DSC) - Part 1:
General Principles (idt ISO 11357-1:1997)

3 Terms and Definitions

For the purposes of this Part, the terms and definitions given in GB/T 19466.1 and the following apply.

3.1 Glass transition

The 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

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