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

GB/T 1632.5-2008

**Plastics -- Determination of the viscosity of polymers in dilute
solution using capillary viscometers -- Part 5: Thermoplastic
polyester (TP) homopolymers and copolymers**

塑料 使用毛细管粘度计测定聚合物稀溶液粘度 第5部分：热塑性均聚和共聚型聚
酯(TP)

(English Translation)

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Table of Contents

Foreword

1 Scope

2 Normative references

4 Solvent

Foreword

GB/T 1632 "plastic using a capillary viscometer polymer dilute solution viscosity" is divided into the following parts.

--- Part 1. General

--- Part 2. PVC resin

--- Part 3. polyethylene and polypropylene

--- Part 4. polycarbonate molding and extrusion materials

--- Part 5. homopolymer and copolymer thermoplastic polyester (TP)

--- Part 6. methyl methacrylate polymer this section GB/T 1632 Part 5.

The partial modification of the use of ISO 1628-5. Part 5 "plastic --- using a capillary viscometer dilute polymer solution viscosity --- 1998 Score. homopolymer and copolymer thermoplastic polyester (TP) "(in English).

This section according to ISO 1628-5:1998 redrafted. This section lists the reg number and ISO 1628-5 in Appendix A.1998 Reg number control list. In Appendix B gives a list of these technical differences and the reasons for the reference.

Appendix C of this section is normative appendix, Appendix A, Appendix B, Appendix D is an informative annex.

This part is proposed by the China Petroleum and Chemical Corporation.

This part of the National Standardization Technical Committee plastic resins and petrochemical products Club (SAC/TC15/SC1) centralized.

This section drafted by. China Petrochemical Research Institute of Beijing Yanshan Company.

1 Scope

This section specifies the determination method in certain solvents Thermoplastic polyester (TP) dilute solution viscosity number (also with the "inherent viscosity" shown).

This section applies to polyethylene terephthalate (PET), polyethylene terephthalate, polybutylene terephthalate (PBT), polyethylene terephthalate cyclohexene Dimethylene ester (PCT), and polyethylene terephthalate polyethylene naphthalate (PEN), and ISO 7792-1:1997 and other polyester copolymers specified He polyesters, which under specified conditions can be dissolved in a solvent of a particular provision.

Determination of the viscosity of the general method according to GB/T 1632.1-2008 prescribed determination, and in accordance with the test conditions specified in this part.

Determination of the number of sticky thermoplastic polyester provides a method for measuring the molecular weight of the polymer.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this section, however, encourage the parties to this part of the research agreement Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 1632.1-2008 plastic using a capillary viscometer dilute polymer solution viscosity - Part 1. General (ISO 1628-1:1998, IDT) (Trueness and precision) - Part 2 Accuracy GB/T 6379.2-2004 measurement methods and results. the standard measurement to determine the party Method repeatability and reproducibility of the basic method GB/T 8170-1987 numerical rounding rules 9345.2-2008 Plastics - Determination of ash GB/T Part 2. polyethylene terephthalate, alkylene esters (ISO 3451-2:1998, IDT) ISO 3105:1994 glass capillary viscometer motion specifications and procedures ISO 7792-1:1997 Plastics - Thermoplastic polyester (TP) molding and extrusion materials - Part 1. Designation system and basis Principle 3 Measured according to conventional methods 25 °C solvent flow time and at a concentration of 0.005g/mL of the sample solution, based on the measured efflux time and a known concentration of the solution viscosity of the calculation. In this method, the density difference and kinetic energy correction value is very small, will not be considered.

4 Solvent

Unless otherwise indicated in the analysis using only recognized as analytical reagents, reagent should be placed in a stoppered brown glass bottles stored in the dark.

Warning --- solvents used are toxic. Avoid skin contact and inhalation of its vapor.

The kind of solvent 4.1 Unsaturated polyester and the number of sticky solvent used relevant provisions of this part of the six different solvents.

Every day at least once measure the efflux time of the solvent (see 8.3). If the flow time of the solvent exceeds the initial preparation of the initial value 1%, the preparation should be discarded and a new solvent.

4.1.1 Phenol/1,2-dichlorobenzene

Weigh 1 part by mass of phenol and dissolved in 1 part by mass of 1,2-dichlorobenzene. Weighing accurate to at least 1%.