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

GB/T 23653-2009

**Plastics -- PVC resins for general use -- Determination of hot
plasticizer absorption**

塑料 通用型聚氯乙烯树脂 热增塑剂吸收量的测定

(English Translation)

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Foreword

This revised standard adopts ISO 4574. 1978 "general-purpose PVC resin plastic --- hot plasticizer absorption measurement" (English) (October 20, 2004 confirmation).

This standard is based on ISO 4574. 1978 redrafted, its main technical differences are as follows.

--- In accordance with the provisions of GB/T 1.1-2000, for some formatting and presentation has been modified;

--- In accordance with the provisions of GB/T 1.1-2000, the normative references chapter added two reference standards (Chapter 2);

--- Plasticizer reagent grade too strict, modify industrial first-class goods (ISO 4574. 1978 in Chapter 4; this standard Chapter 4);

--- ISO 4574. 1978 publication, cited ISO 1060-1 "plastic --- vinyl chloride homopolymer and copolymer resins --- Part 1 Score. Named "standard is still in the draft stage, in the form of footnotes to give the instructions. This standard is equivalent to using the direct reference International standards to national standards GB/T 3402.1, so removing the footnote (ISO 4574. 1978 in footnote 1);

--- Since the normative references a standard file referenced in the chapter does not indicate the number of years, so removed from the standard referenced in the text of the standard Reg (ISO 4574. 1978 in 6.2).

For ease of use, this standard also made the following editorial changes.

- a) "this International Standard" be replaced by "this standard";
- b) use a decimal point instead of a decimal comma " , " . " , " ;
- c) Remove the preface to the international standards.

Appendix A of this standard is an informative annex.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee of plastic PVC resin product Club (SAC/TC15/SC7) centralized.

This standard was drafted. Jinxi Chemical Industry Research Institute, Yichang Yihua Pacific Cogeneration Co., Ltd., Xinjiang Zhongtai Chemical Co., Ltd.

1 Scope

This standard specifies the general-purpose PVC resin (GB/T 3402.1 was named "G") was measured by a planetary mixer mixing hot hot Plasticizer absorption method.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 3402.1 vinyl chloride homopolymer and copolymer resins - Part 1. Designation system and basis for specifications (GB/T 3402.1-2005, ISO 1060-1:1998, MOD) GB/T 11406 Industrial octyl phthalate ISO 4608 plastic universal vinyl chloride homopolymer and copolymer resin measured at room temperature plasticizer absorption Principle 3 200 parts of a plasticizer in the bowl-shaped container is adjusted in a planetary mixer (75 ± 0.2) °C, was added 100 parts of the resin tested with plasticized Mixed. The mixture obtained sample at different times (planned received within 1min to 30min), centrifuged to remove excess plasticizing Agent, the mass of the resin to absorb plasticizers. In the quality of the plasticizer absorbed plotted against time, the test can be obtained from the resin of the following diagram parameter.

--- Plasticizer absorption average speed (RPA);

--- 75 °C, 30min when the heat absorption amount of the plasticizer (HPA) (see Appendix A).

4 Materials

Octyl phthalate (DOP), in line with GB/T 11406 First grade technical requirements.

5 Instruments

Planetary mixer shown in Figure 5.1, the shape and main dimensions 1 and 2, contains the following sections.

Note: In the preparation of the mixture, the impedance of the torque record is meaningful. A mixer suited to the purpose can be available in the market, the details may be ISO/T C61 ISO Secretariat or the Secretariat of the Centre obtained.

5.1.1

jacketed stainless steel bowl container.

5.1.2

thermostat and a pump for circulating demineralized water jacket to adjust the temperature inside the bowl-shaped container (75 ± 0.2) °C.

Note: If the test at a predetermined temperature and different temperatures, particularly at higher than 85 °C, the jacket should use oil instead of demineralized water.

5.1.3

stirrer.

5.1.4

motor, power enough to ensure that the rotation frequency of the entire mixing process required.

5.1.5

or rotating wiper blade for cleaning the inner wall of the bowl-shaped container.

5.2

centrifuge rotor which rotates in a horizontal plane, under the test conditions at the level of the bottom of the tube was measured acceleration ($2.5 \times 10^4 \sim 3.0 \times 10^4$) m/s². If necessary, the assembly of a cooling system to prevent the temperature of the mixture was centrifuged late exceed 30 °C.

Note: To shorten the centrifugation time, allows the use of higher acceleration, for example, 3.5×10^4 m/s², 30min. The results obtained have proved both is the same.