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

GB/T 22314-2008

Replacing GB/T 12007.4-1989

**Plastics -- Polyacrylamide -- Determination for residual
acrylamide
(English Translation)**

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Foreword

This revised standard adopts ISO 3219:1993 "Plastics --- liquid or emulsion state or dispersion of polymer/resin --- rotary viscosity Meter at a specified shear rate viscosity determination "(in English).

This standard is based on ISO 3219:1993 re-drafted in order to facilitate comparison with the ISO 3219 standard are listed in this informative Appendix B.

1993 technical differences, and in the text with a single vertical line identification.

This standard and ISO 3219:1993 main technical differences are as follows.

- Range applies only to liquid epoxy resin;
- Instrument to remove the cone and plate system;
- Procedure to do a more detailed explanation.

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

- a) to the "international standards" be replaced by "this standard";
- b) Delete the ISO 3219:1993 Foreword;
- c) increase the national standard foreword;
- d) For the ISO 3219:1993 and other international standards referenced in our country is equivalent to using the standard, with reference to our present standard National standards instead of the corresponding international standards;
- e) use of decimal notation. "" instead of the international standard decimal symbol "." this standard replaces GB/T 12007.4-1989 "Determination of the viscosity epoxy resin." this standard compared with GB/T 12007.4-1989 The main changes are as follows.
 - Increasing shear rate of a series;
 - Precision instrument made provisions;

- Increase measured for 3 times;
- Added two appendices;
- Increasing the viscosity meter calibration;
- Increase the accuracy of the thermometer should be 0.05 °C.

Appendix A of this standard is a normative appendix, Appendix B is an informative annex.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee of plastic (SAC/TC15) centralized.

1 Scope

This standard gives a coaxial having a predetermined shear rate double cylindrical rotary viscometer viscosity method.

This standard applies to the determination of the viscosity of the liquid epoxy resin.

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 2918-1998 standard plastic sample conditioning and environmental tests (idt ISO 291:1997) Principle 3 with used with the specified characteristics of the viscometer according to the shear rate and shear stress measurements obtained viscosity liquid sample.

(1) viscosity η is defined by the formula.

$\eta =$

$\frac{\tau}{\dot{\gamma}}$

Where.

--- viscosity $[\eta]$, in units of Pascal seconds (Pa · s);

$[\tau]$ --- shear force unit Pascals (Pa);

$\dot{\gamma}$ --- shear rate in second (s⁻¹).

According to the International System of Units (SI) unit of viscosity is Pascal seconds (Pa · s) 1Pa · s = 1N · s/m²

Note 1: Sign and GB 3102.3 Quantities and units of mechanics consistent.

Kwan called Newtonian liquids.

4.1.1 Measuring System

Measurement system shall include coaxial surfaces of two rigid symmetrical, during which the viscosity of the fluid into the test. Wherein a surface at a constant angular velocity Degree rotation, while the other surface remain stationary. Measurement system should be determined for each measurement of the shear rate.

Torque measuring device shall be connected to a surface which can be measured so as to overcome the viscous resistance of the fluid torque required.

Suitable for the coaxial cylinder measuring system.

Size measurement system shall meet the conditions specified in Appendix A, which is designed to ensure that all test measurement types and all common models of the instrument Weight region having a similar geometry.

4.1.2 Basic instrument

Basic instrument should be designed to be able to install alternative rotor and the stator to form a series of predetermined rotational frequency (stepwise or continuously Change), and the corresponding torque can be measured, and vice versa (ie. generating a predetermined torque and rotational frequency corresponding measurements).

Torque measuring instrument accuracy should be within the full scale count of 2%. Within the normal operating range of the instrument, the instrument precision rotational frequency