SLOVENSKI STANDARD

SIST EN ISO 8619:2005

marec 2005

Polimerni materiali - Praškaste fenolne smole - Ugotavljanje pretočne razdalje na segreti stekleni plošči (ISO 8619:2003)

Plastics - Phenolic resin powder - Determination of flow distance on a heated glass plate (ISO 8619:2003)

ICS 83.080.10

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English version

Plastics - Phenolic resin powder - Determination of flow distance on a heated glass plate (ISO 8619:2003)

Plastiques - Résines phénoliques en poudre - Détermination de la distance d'écoulement sur une plaque de verre chauffée (ISO 8619:2003)

Kunststoffe - Pulverförmige Phenolharze - Bestimmung der Fließstrecke auf einer vorgeheizten Glasplatte (ISO 8616:2003)

This European Standard was approved by CEN on 21 December 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

The text of ISO 8619:2003 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 8619:2004 by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

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of an identical text or by endorsement, at the latest by June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

This document supersedes EN ISO 8619:1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 8619:2003 has been approved by CEN as EN ISO 8619:2004 without any modifications.

INTERNATIONAL STANDARD

ISO 8619

Third edition
2003-04-01

Plastics — Phenolic resin powder — Determination of flow distance on a heated glass plate

Plastiques — Résines phénoliques en poudre — Détermination de la distance d'écoulement sur une plaque de verre chauffée

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8619 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 12, *Thermosetting materials*.

This third edition cancels and replaces the second edition (ISO 8619:1995), which had been revised so that the test device may also be tilted by opening the oven.

Plastics — Phenolic resin powder — Determination of flow distance on a heated glass plate

1 Scope

1.1 This International Standard specifies a method for the determination of the flow distance of powdered heat-setting phenolic resins for production and control. With reference to tablet formation, test temperature and angle of inclination of the glass plate, measurement of the flow distance involves arbitrarily defined conditions.

1.2 The flow distance is dependent on the reactivity and melt viscosity of the resins. Rapid solidification and high melt viscosity shorten the flow distance.

2 Principle

Tablets are first produced under defined conditions and are placed on a glass plate which has been heated to (125 ± 1) °C in a naturally ventilated oven. The plate, with the tablets on it, is kept in the oven for 3 min in the horizontal position and then for 20 min in a tilted position. The flow distance is then measured.

3 Apparatus

3.1 Oven with natural ventilation, capable of maintaining a temperature of (125 ± 1) °C. Use a spirit level to check that it is perfectly horizontal. The temperature shall be measured in the immediate vicinity of the test tablets.

3.2 Cylindrical tablet press, for producing tablets (12,5 ± 0,3) mm in diameter and (4,8 ± 0,2) mm thick.

3.3 Balance, accurate to 1 mg.

3.4 Tilting device, made of metal, which can be manipulated from outside or after opening the oven, to position the glass plate (3.5) either horizontally or at an angle of 60° ± 1° (see Figure 1).

3.5 Glass plate, of a suitable size to fit in the oven, for example length 100 mm to 150 mm, width 60 mm to 120 mm, thickness 2,7 mm to 3 mm. The glass plate shall be absolutely clean, smooth and without scratches. To make sure that the tablets have not become displaced during the experiment, a starting line may be drawn on the plate.

NOTE The starting line is scored on the plate using a glass cutter. It has no influence on the result, and is simply used for precise positioning of the tablets and for measuring the flow distance.

4 Procedure

4.1 In cases of dispute, dry the sample until constant mass is obtained, for example by storing the powdered resin in a desiccator for at least 48 h over phosphorus pentoxide.

NOTE The water content of the sample has a marked influence on the flow distance.