



SLOVENSKI STANDARD

SIST EN 543:1998

01-februar-1998

Lepila - Določanje prostorninske mase lepil v prahu in granulah

Adhesives - Determination of apparent density of powder and granule adhesives

Klebstoffe - Bestimmung der Schüttdichte von Pulver- und Granulat-Klebstoffen

Adhésifs - Détermination de la masse volumique apparente des adhésifs en poudre et en granules

(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN 543:1994**

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ICS:

83.180 Lepila Adhesives

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en

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EUROPEAN STANDARD

EN 543

NORME EUROPÉENNE

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English version

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(standard.teh.ai)



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO
Urad RS za standardizacijo in meroslovje
LJUBLJANA

SIST. EN 543

PREVZET PO METODI RAZGLASITVE

-02- 1998

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 193 "Adhesives", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by May 1995, and conflicting national standards shall be withdrawn at the latest by May 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

1 Scope

This European standard defines a method for the determination of apparent density of powder and granule adhesives.

The method is applicable to all powder and granule adhesives.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 1066 ¹⁾ Adhesives - Sampling

EN 1067 ¹⁾ Adhesives - Examination and preparation of samples for testing

3 Principle

The method is based on the determination of the mass of a known volume of powder or granule adhesive and is performed at a temperature of $(23 \pm 2) ^\circ\text{C}$, relative humidity $(50 \pm 5) \%$.

4 Apparatus

Usual laboratory apparatus including the following :

4.1 Balance accurate to 0,1 g.

¹⁾ In course of preparation.



4.2 Cylindrical container, capacity $(100 \pm 0.5) \text{ cm}^3$, internal diameter of $(40 \pm 2) \text{ mm}$.

4.3 Funnel, as shown in Figure 1

4.4 Spatula

Dimensions in millimetres

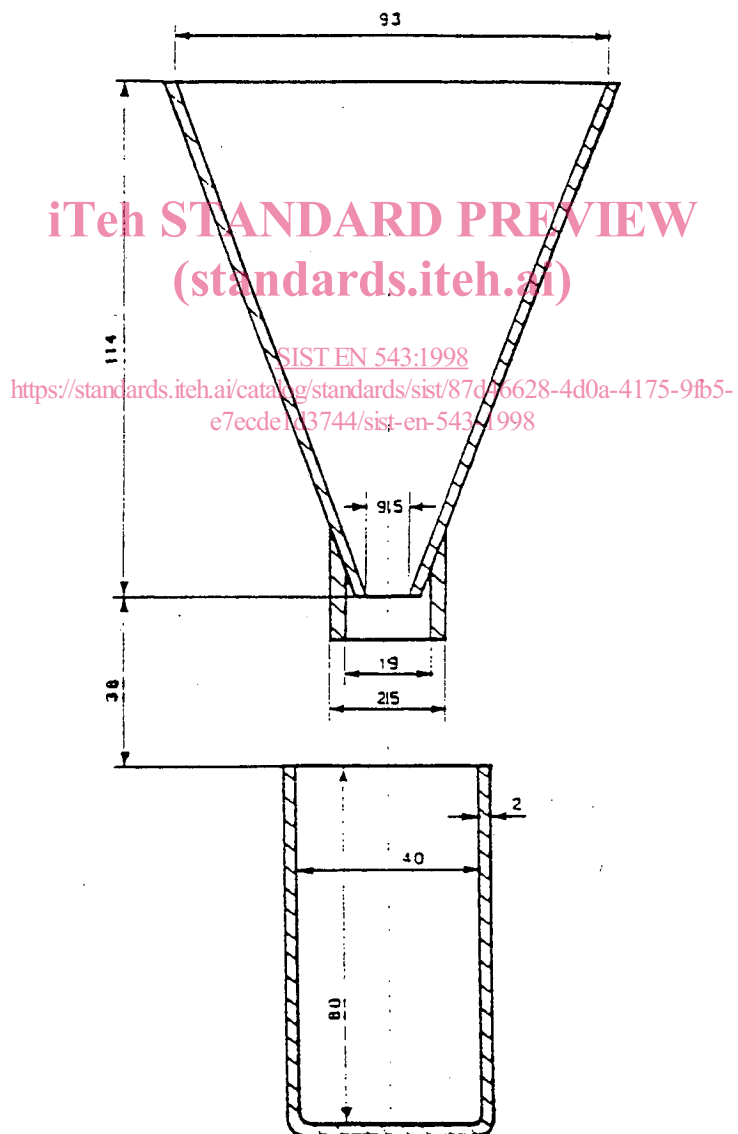


Figure 1 : Funnel and collection cylinder

5 Sampling

Sample as described in EN 1066.
Homogenize as described in EN 1067.

6 Procedure

6.1 Determine the mass m_1 of the empty container (4.2).

6.2 Condition the sample for at least 12 hours at (23 ± 2) °C and (50 ± 5) % relative humidity.

6.3 Pour 110 cm^3 to 120 cm^3 of sample into the funnel positioned coaxially over the collection cylinder at a height of $114 + 38$ mm from the top (see Fig. 1), taking care that the lower orifice is closed by a suitable closure. (See note).

NOTE : any rigid sheet larger than the orifice is suitable

6.4 Open the orifice and allow the material to flow into collection cylinder. If the flow stops or becomes inconveniently slow, it can be speeded up by gently prodding the material in the funnel with a wire.

Avoid compressing the material or shaking the cylinder.

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6.5 When the cylinder is full, remove excess product by levelling off at the upper edge with a flat spatula.

Avoid compressing the material or shaking the cylinder.

6.6 Determine the mass m_2 of the full collection cylinder

7 Expression of results

The apparent density (in gram per centimetre cube) is given by the following equation :

$$\rho_a = \frac{m_2 - m_1}{100}$$

where :

ρ_a is the apparent density in gram per centimetre cube of the adhesive ;

m_2 is the mass (in gram) of the full cylinder ;

m_1 is the mass (in gram) of the empty cylinder.

The reproducibility and the repeatability of the measure is still unknown.

8 Test report

The test report shall include the following information :

- a) a reference to this European Standard ;
- b) data for sample identification ;
- c) test conditions ;
- d) results, number of determinations performed ;
- e) any peculiarity observed during the test and any deviation from the test procedure ;
- f) the date of the test.