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ISO RECOMMENDATION

R 1265

PLASTICS

PVC RESINS

DETERMINATION OF IMPURITIES AND FOREIGN MATTER

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BRIEF HISTORY

The ISO Recommendation R 1265, *Plastics – PVC resins – Determination of impurities and foreign matter,* was drawn up by Technical Committee ISO/TC 61, *Plastics,* the Secretariat of which is held by the American National Standards Institute (ANSI).

Work on this question led to the adoption of Draft ISO Recommendation No. 1265, which was circulated to all the ISO Member Bodies for enquiry in May 1967. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	India	Romania
Austria	Iran	South Africa, Rep. of
Belgium	Israel	Spain
Bulgaria	Italy	Sweden
Canada	Japan	Switzerland
Czechoslovakia	Korea, Dem. P. Rep. of	Turkey
France	Korea, Rep. of	U.A.R.
Germany	Netherlands	United Kingdom
Greece	New Zealand	U.S.A.
Hungary	Poland	Yugoslavia

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

ISO Recommendation R 1265 October 1970

PLASTICS

PVC RESINS

DETERMINATION OF IMPURITIES AND FOREIGN MATTER

1. SCOPE

This ISO Recommendation defines a conventional method of determining the number of impurities and foreign particles in a flattened surface of PVC resin. It is not applicable to paste resins because of their finely divided state.

2. PRINCIPLE

Flattening a certain quantity of resin between a rigid plate (covered with a sheet of glazed white paper) and a sheet of glass containing a grid and counting the impurities and foreign particles *visible in 25 squares.*

Expression of the result by extrapolation, as the number of specks *per 100 squares* of the grid.

3. APPARATUS

3.1 *Sheet of glass,* 340 mm × 340 mm × 4.5 mm, colourless, perfectly transparent, without defects such as stripes, bubbles, black spots, etc.*, in the centre and on the surface of which is a grid 300 mm × 300 mm consisting of 100 squares 30 mm × 30 mm. This grid may be drawn with an indelible pencil, a diamond or any appropriate tool, on the face of the sheet which is not in contact with the resin.

3.2 *Rigid plate,* 450 mm × 450 mm, covered with a sheet of glazed white paper.

3.3 *Photographic scale of reference,* given in the Annex to this ISO Recommendation.

* In case of defects on the sheet, take this into account during the determination.

4. PROCEDURE

On the rigid plate covered with glazed white paper, spread out about 200 cm^3 of resin for examination.

Place the sheet of glass on the resin and by slight movements of the glass spread the resin so that it touches the glass at least over an area of 25 squares, preferably in the centre of the plate.

To avoid any mistake, mark the limits of the entire 25 selected squares with a thick pencil trace (see Figure). Count inside these 25 squares, the number, n_1, of black or coloured particles which have a *diameter equal to or greater than 0.250 mm.* It is these particles which are called impurities or foreign matter.

To do this proceed as follows :

- carry out the counting by visual examination at a distance of about 300 mm, in good lighting conditions;
- use the photographic scale of reference to determine by comparison the size of coloured and black particles to be used for the measurement.

NOTE. – To minimize fatigue of the operator's eyes, the operator should be trained to carry out the determination in a maximum time of 2 minutes.

Carry out a second determination.

5. EXPRESSION OF RESULTS

Express the average result for 100 squares, by the formula

$$\text{Impurities and foreign particles} = 4\left(\frac{n_1 + n_2}{2}\right) = 2\,(n_1 + n_2)$$

where

n_1 is the value obtained in the first determination;

n_2 is the value obtained in the second determination.

6. TEST REPORT

The test report should include the following information :

(*a*) reference to this ISO Recommendation or to an equivalent national standard;

(*b*) complete identification of the product tested;

(*c*) the result expressed according to section 5;

(*d*) any circumstances which may have affected the result;

(*e*) date of test.