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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1598

PLASTICS

DETERMINATION OF INSOLUBLE PARTICLES IN CELLULOSE ACETATE

1st EDITION

April 1970

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 1598, *Plastics – Determination of insoluble particles in cellulose acetate*, 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. 1598 which was circulated to all the ISO Member Bodies for enquiry in May 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	Iran	Romania
Belgium	Israel	South Africa, Rep. of
Brazil	Italy	Spain
Czechoslovakia	Japan	Sweden
France	Korea, Rep. of	Switzerland
Germany	Netherlands	U.A.R.
Hungary	Poland	United Kingdom
India	Portugal	U.S.A.

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in April 1970, to accept it as an ISO RECOMMENDATION.

ISO Recommendation | R 1598 | April 1970

PLASTICS

DETERMINATION OF INSOLUBLE PARTICLES IN CELLULOSE ACETATE

1. SCOPE AND FIELD OF APPLICATION

1.1 This ISO Recommendation describes a method for the determination of the number of visible particles (including all kinds of contamination and black dirt) in cellulose acetate which are insoluble in a mixture of dimethylphthalate, dichloromethane, and methanol, and are of size 0.15 mm or larger.

1.2 This method is intended for cellulose acetate having an acetic acid yield above 50 % and containing no additives which affect the test results.

2. PRINCIPLE OF METHOD

A solution is prepared by addition of a solvent to the cellulose acetate, and the visible, undissolved particles in this solution of a size equal to or larger than a standard reference particle of specified size are counted.

3. REAGENTS

3.1 *Dichloromethane*, with relative density at 20 °C/20 °C of 1.321 to 1.331. Not less than 95 % (V/V) should distil at 1013 mbar (760 mmHg) between 39 and 40.5 °C.

3.2 *Methanol*, with relative density at 20 °C/20 °C of 0.792 to 0.795 and distillation range at 1013 mbar (760 mmHg) of 64.5 to 65.5 °C.

3.3 *Dimethylphthalate*, having a moisture content less than 0.1 % (m/m).

All reagents must be free from insoluble particles.

4. APPARATUS

4.1 *Transparent glass dish*, with flat bottom having an area of not less than 26 000 mm^2.

Fine lines are ruled on the underside to form a network of squares with 25 mm sides. The dish is provided with a transparent cover to exclude dust.

4.2 *Illuminated viewing stand, comprising :*

(*a*) A sheet of white opal glass the size of the dish or larger, evenly illuminated from below.

(*b*) Means to support the dish about 80 mm above the opal glass.