INTERNATIONAL STANDARD 706

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Rubber latices — Determination of coagulum content

Latex de caoutchouc — Détermination de la teneur en coagulum

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 706 was drawn up by Technical Committee ISO/TC 45, *Rubber and rubber products.*

This second edition was submitted directly to the ISO Council, in accordance with clause 6.12.1 of the Directives for the technical work of ISO. It cancels and replaces the first edition (ISO 706-1975), which had been approved by the Member Bodies of the following countries :

Australia	Germany	Romania
Austria	Hungary	South Africa, Rep. of
Belgium	India	Spain
Brazil	Malaysia	Sweden
Bulgaria	Netherlands	United Kingdom
Canada	New Zealand	U.S.A.
Egypt, Arab Rep. of	Poland	U.S.S.R.
France	Portugal	Yugoslavia

No Member Body expressed disapproval of the document.

Rubber latices — Determination of coagulum content

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for the determination of the coagulum content of natural rubber latex which contains preservative agents and which has been submitted to some type of concentration process, and also for the determination of the coagulum content of synthetic rubber latices.

The method is not necessarily suitable for latices from natural sources other than *Hevea brasiliensis*, or for compounded latex, vulcanized latex or artificial dispersions of rubber.

The method is not applicable to latices which are coagulated by potassium oleate solution, for example cationic latices.

2 REFERENCE

ISO 123, *Rubber latex — Sampling.*

3 DEFINITION

coagulum : The material retained on a stainless steel wire cloth with an average aperture width of 180 ± 15 μm, under the conditions of the test, comprising pieces of coagulated rubber, latex skin and coarse foreign matter.

4 REAGENTS

Distilled water or water of equivalent purity shall be used wherever water is specified.

Soap solution, 5 % potassium oleate, of pH value 10.

5 APPARATUS

Ordinary laboratory apparatus and

5.1 Test filter, consisting of a disk of stainless steel wire cloth with an average aperture width of 180 ± 15 μm, dried at 100 ± 2 °C to constant mass and weighed to the nearest 1 mg, firmly clamped between two stainless steel rings of equal internal diameter between 25 and 50 mm.

NOTE — If the wire cloth is not clean, the disk shall be immersed for 2 min in boiling nitric acid (ρ 1,42 g/ml) and washed with water before it is dried to constant mass.

5.2 Oven, capable of being maintained at a temperature of 100 ± 2 °C.

5.3 Desiccator.

6 SAMPLING

Sampling shall be carried out in accordance with one of the methods specified in ISO 123.

7 PROCEDURE

Weigh 200 ± 1 g of latex into a 600 ml beaker which has a lip. Add 200 ml of soap solution (clause 4) and mix thoroughly. Wet the test filter (5.1) with soap solution and pour the latex/soap mixture into the test filter. Wash the residue on the wire cloth with soap solution until it is free from latex and then with water until the washings are neutral to litmus. Carefully remove the wire cloth containing the wet coagulum from the clamp and swab the underside with filter paper.

Heat the wire cloth and coagulum in the oven (5.2) at 100 ± 2 °C for 30 min, cool in the desiccator (5.3) and weigh. Repeat the drying procedure for intervals of 15 min, cool and weigh, until the loss in mass between successive weighings is less than 1 mg.

Subtract the original mass of the wire cloth to obtain the mass of coagulum.