

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 126

DETERMINATION OF DRY RUBBER CONTENT OF LATEX

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BRIEF HISTORY

The ISO Recommendation R 126, *Determination of Dry Rubber Content of Latex*, was drawn up by Technical Committee ISO/TC 45, *Rubber*, the Secretariat of which is held by the British Standards Institution (B.S.I.).

Work on the preparation of this method was authorized at the first meeting of the Technical Committee held in London, in June 1948 and was entrusted to the Working Group No. 12, *Sampling of Latex*.

The Secretariat considered the standard methods adopted by the Member Bodies and proposed a compromise method which was put forward to the Working Group.

The method was considered by the Working Group and by the Technical Committee at the meeting held in The Hague, in September 1949; in Akron, in October 1950; in Oxford, in October 1951; in Paris, in June 1953, and was finally approved as a Draft ISO Recommendation at the Dusseldorf meeting, 5th-10th September 1955.

On 29 March 1957, the Draft ISO Recommendation (No. 147) was distributed to all the ISO Member Bodies and was approved, subject to some modifications, by the following 24 (out of a total of 38) Member Bodies:

*Australia	Hungary	Rumania
Austria	India	Spain
*Canada	*Indonesia	Sweden
Czechoslovakia	*Ireland	Switzerland
*Denmark	Italy	Union of South Africa
Finland	Japan	United Kingdom
*Germany	*New Zealand	U.S.A.
Greece	Pakistan	U.S.S.R.

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided in August 1959, to accept it as an ISO RECOMMENDATION.

* These Member Bodies stated that they had no objection to the Draft being approved.

DETERMINATION OF DRY RUBBER CONTENT OF LATEX

1. SCOPE

This ISO Recommendation describes a method of test for natural rubber latex which contains preservative agents, and which may have been submitted to some type of concentration process. The test is not necessarily suitable for latices from natural sources other than *Hevea brasiliensis* or for latices of synthetic rubber, compounded latex, heat-concentrated latex, vulcanized latex or artificial dispersions of rubber.

2. PROCEDURE

About 10 g of the well mixed sample is weighed accurately to 1 mg in a suitable container such as a beaker. Distilled water is added until the total solid content of the latex is about 20 per cent. Up to 8 ml of acetic acid (2 per cent weight/volume) is added per gramme of sample while gently stirring over a period of 5 min. The solution is kept undisturbed for about 15 min at a temperature a little below boiling. If the serum remains milky, about 0.5 ml of ethanol is added per gramme of sample and gently stirred.

Freshly preserved latex may be coagulated with 0.5 per cent acetic acid by adding up to 15 ml of acid per gramme of sample.

When the serum is clear, any small particles of coagulum are collected by rubbing with the main bulk.

The coagulum is washed with running water or with at least six changes of water until neutral to litmus, and its thickness is reduced to less than 2 mm as quickly as possible.

The coagulum is dried at a temperature of approximately 70 °C. It is cooled in a desiccator and weighed as quickly as possible. The drying operation is repeated until the loss in weight is less than 5 mg during a period of 30 min.

3. EXPRESSION OF RESULTS

$$\text{Dry rubber content (D.R.C.), per cent} = \frac{\text{weight of dry coagulum, in grammes}}{\text{weight of test portion, in grammes}} \times 100$$

A difference of 0.2 between the results of duplicate determinations on the same sample is not considered significant.