
INTERNATIONAL STANDARD



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Rubber latex — Sampling

Latex d'élastomère — Échantillonnage

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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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 45 has reviewed ISO Recommendation R 123 and found it suitable for transformation. International Standard ISO 123 therefore replaces ISO Recommendation R 123-1968.

ISO Recommendation R 123 was approved by the Member Bodies of the following countries :

Argentina	Germany	Spain
Australia	Hungary	Sweden
Austria	India	Switzerland
Brazil	Israel	United Kingdom
Canada	Japan	U.S.A.
Chile	Korea, Rep. of	U.S.S.R.
Colombia	Netherlands	Yugoslavia
Czechoslovakia	New Zealand	
France	Poland	

The Member Body of the following country has subsequently approved this Recommendation :

South Africa, Rep. of

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 123 into an International Standard.

Rubber latex — Sampling

1 SCOPE AND FIELD OF APPLICATION

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

These procedures are not necessarily suitable for latices from natural sources other than *Hevea brasiliensis* or for compounded latex, vulcanized latex or artificial dispersions of rubber.

2 GENERAL

Rubber latex may tend to cream on standing. If stratification has occurred, the latex shall be thoroughly agitated to obtain a homogeneous blend suitable for the withdrawal of a representative sample. The procedure required differs with the type of container and facilities available.

In all cases where samples are drawn from several containers, for example 10 % sampling of latex in drums, or in the case of tanks or tank cars where extractions are made at various depths, such samples shall be bulked and stirred. The final average sample shall then be bottled and sealed.

Synthetic rubber latices may form a skin when exposed to air. The sample shall therefore be kept in a closed container. Care shall be taken, however, not to fill the container completely, so as to allow for thermal expansion. Polyethylene or other container materials which may be attacked by residual monomers present in synthetic latex shall not be used.

During the handling and testing of the sample, care shall be taken not to generate foam or to introduce air. Cascading of the latex from one receptacle to another shall be avoided. Exposure of the latex to air shall be kept to a minimum. This is particularly important if there is foam on the latex since the foam tends to skin rapidly, particularly with synthetic latex.

3 PREPARATION OF TEST SAMPLE

If coagulum, skin or foreign matter are visible in the latex, or if coagulum as determined by the method given in ISO 706, *Rubber latex — Determination of coagulum*

content, exceeds 0,05 % (m/m) of the latex, the latex before being subjected to test other than determination of coagulum content shall be filtered through nylon or stainless steel gauze with an average aperture of $180 \pm 15 \mu\text{m}$. If visible coagulum, skin or foreign matter are present in the latex, this shall be mentioned in the test report. Samples shall be carefully stirred before filtering or testing.

4 DRUMS

4.1 Blending of content

4.1.1 Method A

If the drum is fitted with a bung and contains at least 2 % air space, lay it on its side and roll it to and fro briskly for not less than 10 min. Then turn the drum so as to stand it on the end which was originally uppermost and allow to stand for about 15 min, and repeat the rolling operation for at least a further 10 min.

If the drum contains less than 2 % air space, transfer the contents to a larger vessel and stir thoroughly, preferably by means of a perforated stainless steel disk plunger (normally about 10 min should suffice).

If the drum is of the open-head type, remove the end head and stir the contents thoroughly, preferably by means of a perforated stainless steel disk plunger (normally about 10 min should suffice).

4.1.2 Method B

Agitate the contents by means of a suitable motor-driven stirrer for as long as is necessary to disperse the cream. Excessive stirring and unnecessary exposure of the latex to air shall be avoided.

A suitable type of stirrer consists of a collapsible two-bladed stainless steel propeller of 110 mm minimum diameter when fully opened, mounted on a stainless steel shaft sufficiently long for the propeller to be distant about one-tenth the height of the latex from the bottom of the drum. Operate the stirrer at the minimum speed of 100 rev/min.

If desired, two propellers may be used on the same shaft, in which case the lower one shall meet the foregoing requirements as regards position. The shaft speed shall give a brisk turnover without creating a vortex. The part of the equipment immersed in the latex shall not contain copper.

4.2 Removal of sample

After blending, take a sample without delay. A suitable method is by slowly inserting a clean, dry glass tube of 10 to 15 mm internal diameter and open at both ends, until it reaches the bottom of the container. Then close the upper end of the tube and transfer the contents to a clean, dry sample bottle. Repeat the operation until sufficient latex has been obtained.

Alternatively, a specially constructed metal sampling tube may be used, the bottom of which can be closed by remote control. No copper or brass shall be used in any part of its construction.

5 TANKS AND TANK CARS

5.1 Take three samples of similar volume, one at the centre of the tank, another half-way between the centre and the bottom, and the third half-way between the centre and the top. Take the top sample first, then the centre sample, and the bottom sample last. Use a weighted sampler with a remotely operated removable top, or other suitable sampling device that will accomplish the same results. Blend the three samples thoroughly.

5.2 If there is reason to suspect that stratification has occurred, take samples separately 75 mm from the top surface and 75 mm from the bottom of the tank. If results from the top and bottom samples do not agree within 1 % total solids, the contents shall be thoroughly agitated until samples obtained do agree with this tolerance. After this has been accomplished, carry out the sampling as specified in 5.1.

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