INTERNATIONAL STANDARD

ISO 705

Third edition
2015-11-01

Rubber latex — Determination of density between 5 °C and 40 °C

Latex de caoutchouc — Détermination de la masse volumique entre 5 °C et 40 °C

Reference number
ISO 705:2015(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 3, *Raw materials (including latex) for use in the rubber industry*.

This third edition cancels and replaces the second edition (ISO 705:1994), which has been revised to

— update the normative references (in Clause 2 and throughout the text),

— move part of the scope into a new Clause 4 "Principle", and

— add a bibliography.

Rubber latex — Determination of density between 5 °C and 40 °C

1 Scope

This International Standard specifies a method for the determination of the density of natural rubber latex concentrate between the temperatures of 5 °C and 40 °C.

This International Standard is intended for use when density determinations are used to calculate the mass of a measured volume of latex in locations where it is not practical to weigh directly or to control the temperature of the laboratory.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 123, *Rubber latex — Sampling*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
density
mass divided by volume at a stated temperature

Note 1 to entry: Density is measured in megagrams per cubic metre.

3.2
natural rubber latex concentrate
natural rubber latex containing ammonia and/or other preservatives and which has been subjected to some form of concentration

4 Principle

For the determination of the density of natural rubber latex concentrate between 5 °C and 40 °C, it is essential that the density be determined on a latex sample containing the same amount of air as contained when the volume was measured. Therefore, the latex bulk is allowed to stand for a minimum period of 24 h before sampling to ensure the removal of air bubbles. The density determination is preferably made at the same temperature as the volume measurement, otherwise a correction shall be applied.

This method is suitable for all latices from natural sources, for synthetic latex and for compounded or prevulcanized latex, as well as for artificial dispersions of rubber. However, the temperature correction given in 8.2 is not necessarily valid for all these.

For measurements made at standard temperatures, ISO 2811-1 and ISO 2811-3 should be used.

5 Apparatus

Ordinary laboratory equipment, plus the following.