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Rubber, raw natural — Determination of the gel content of technically specified rubber (TSR)

Caoutchouc naturel brut — Détermination de la teneur en gel des caoutchoucs spécifiés techniquement (TSR)

Reference number
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Contents

Page

Foreword ..... **iv**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Principle **1**
5 Reagent **1**
6 Apparatus **2**
7 Conditions **2**
8 Procedure **2**
8.1 Number of test samples 2
8.2 Procedure 2
9 Expression of the result **3**
10 Precision **4**
11 Test report **4**
Annex A (informative) **Precision** **5**
Bibliography **7**

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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.

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This document was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 3, *Raw materials (including latex) for use in the rubber industry*.

This second edition cancels and replaces the first edition (ISO 17278:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

— to solve the ambiguity with the scope, the term “LoV-TSR sample” in Clause 4 has been replaced by the term “TSR sample”;

— in 8.1, the words “two samples” have been replaced by “two test samples”;

— in 5.2, acetone has been added.

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Rubber, raw natural — Determination of the gel content of technically specified rubber (TSR)

WARNING — Persons using this document should be familiar with normal laboratory practice. This document does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices.

1 Scope

This document specifies a method for the determination of gel content for technically specified rubbers (TSR).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2000:2014, *Rubber, raw natural — Guidelines for the specification of technically specified rubber (TSR)*

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
technically specified rubber
TSR
natural rubber obtained from the latex of *Hevea brasiliensis* (typically processed into block rubber), and having properties complying with the criteria for the grade concerned

4 Principle

A TSR sample is dissolved in toluene under specified conditions, and the gel content is calculated as the percentage mass fraction of the insoluble part of the rubber.

5 Reagent

Use only reagents of recognized analytical grade.

5.1 **Toluene**, analytical grade.

CAUTION — The solvent might evaporate from the flask or tube when it is handled. Therefore, handling this solvent should be done only when permitted and only in a well-ventilated appropriate place.

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