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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)*



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Published in Switzerland

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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. [www.iso.org/directives](http://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. [www.iso.org/patents](http://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.

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*.

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

## 1 Scope

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

**WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard 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 and to ensure compliance with any national regulatory conditions.**

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable to 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 2000,<sup>1)</sup> *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 Principle

An LoV-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.

## 4 Terms and definitions

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

### 4.1

#### 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

## 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 by local health and safety regulation and only in a well-ventilated appropriate place.**

1) Under preparation. (Revision of ISO 2000:2003)