INTERNATIONAL STANDARD

ISO 248-1

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Rubber, raw — Determination of volatile-matter content —

Part 1: Hot-mill method and oven method

Caoutchouc brut — Détermination des matières volatiles —

Partie 1: Méthode par mélangeage à chaud et méthode par étuvage

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 248-1 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 2, *Testing and analysis*.

This first edition cancels and replaces ISO 248:2005, which has been technically revised.

ISO 248 consists of the following parts, under the general title *Rubber, raw — Determination of volatile-matter content*:

— *Part 1: Hot-mill method and oven method*

— *Part 2: Thermogravimetric methods using an automatic analyser with an infrared drying unit*

Rubber, raw — Determination of volatile-matter content —

Part 1:
Hot-mill method and oven method

WARNING — Persons using this part of ISO 248 should be familiar with normal laboratory practice. This part of ISO 248 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.

IMPORTANT — Certain procedures specified in this part of ISO 248 might involve the use or generation of substances, or the generation of waste, that could constitute a local environmental hazard. Reference should be made to appropriate documentation on safe handling and disposal after use.

1 Scope

1.1 This part of ISO 248 specifies two methods for the determination of volatile-matter content in raw rubbers by using a hot mill or an oven.

1.2 The methods are applicable to the determination of the volatile-matter content in the “R” group of rubbers listed in ISO 1629. These are rubbers having an unsaturated carbon chain, for example natural rubber and synthetic rubbers derived at least partly from diolefins. The methods can also be applicable to other raw rubbers, but in these cases it is necessary to demonstrate that the change in mass is due solely to loss of actual volatile matter and not to rubber degradation.

1.3 The hot-mill method is not applicable to natural rubber, to synthetic rubbers which are too difficult to handle on a hot mill or to synthetic rubbers in powder or chip form.

1.4 The test methods do not necessarily give identical results. Therefore, in cases of dispute, the oven method, procedure A, is the reference method.

NOTE The applicability of each test method to various types of rubber is summarized in Annex A.

2 Normative references

The following referenced documents are indispensable for the application 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 1629, *Rubber and latices — Nomenclature*

ISO 1795, *Rubber, raw natural and raw synthetic — Sampling and further preparative procedures*

ISO 2393, *Rubber test mixes — Preparation, mixing and vulcanization — Equipment and procedures*