



BSI Standards Publication

Vulcanized crumb rubber — Evaluation procedures

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National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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**Vulcanized crumb rubber —
Evaluation procedures**

Poudrettes de caoutchouc vulcanisées — Méthodes d'évaluation



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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Sampling and sample preparation	1
4 Physical and chemical tests on raw vulcanized crumb rubber	1
4.1 Classification	1
4.2 Determination of particle size distribution	2
4.3 Determination of free steel content	2
4.4 Determination of free textile content	2
4.5 Acetone extract	2
4.6 Ash	2
4.7 Carbon black	2
4.8 Rubber content	2
5 Preparation of test mixes for evaluation	2
5.1 Standard test formulation	2
5.2 Procedure	3
6 Evaluation of vulcanization characteristics by a curemeter	5
6.1 Using an oscillating-disc curemeter	5
6.2 Using a rotorless curemeter	6
7 Evaluation of Mooney viscosity of test mixes	6
8 Evaluation of tensile stress-strain properties of vulcanized test mixes	6
9 Evaluation of Shore hardness of vulcanized test mixes	6
10 Evaluation of tear strength of vulcanized test mixes	6
11 Test report	6
Bibliography	8

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).

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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*.

Vulcanized crumb rubber — Evaluation procedures

1 Scope

This Technical Specification specifies physical and chemical tests, standard test formulations, equipment and processing methods for the vulcanization-characteristics evaluation and the mechanical properties of vulcanized crumb rubber.

It is not aimed to provide specifications or limitations, or whether these vulcanized crumb rubbers may be used.

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 34-1:2010, *Rubber, vulcanized or thermoplastic — Determination of tear strength — Part 1: Trouser, angle and crescent test pieces*

ISO 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 247:2006, *Rubber — Determination of ash*

ISO 289-1, *Rubber, unvulcanized — Determinations using a shearing-disc viscometer — Part 1: Determination of Mooney viscosity*

ISO 1407:2011, *Rubber — Determination of solvent extract*

ISO 1408, *Rubber — Determination of carbon black content — Pyrolytic and chemical degradation methods*

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

ISO 3417, *Rubber — Measurement of vulcanization characteristics with the oscillating disc curemeter*

ISO 6502, *Rubber — Guide to the use of curemeters*

ISO 7619-1, *Rubber, vulcanized or thermoplastic — Determination of indentation hardness — Part 1: Durometer method (Shore hardness)*

CEN/TS 14243:2010, *Materials produced from end of life tyres — Specification of categories based on their dimension(s) and impurities and methods for determining their dimension(s) and impurities*

3 Sampling and sample preparation

Take a laboratory sample of approximately 1,5 kg.

4 Physical and chemical tests on raw vulcanized crumb rubber

4.1 Classification

Classify raw vulcanized crumb rubber, based mainly on their dimensions, in accordance with CEN/TS 14243:2010, Clause 4.