



BSI Standards Publication

Reclaimed rubber derived from products containing mainly natural rubber — Evaluation procedure

National foreword

This Published Document is the UK implementation of ISO/TS 16095:2014.

The UK participation in its preparation was entrusted to Technical Committee PRI/50, Rubber - Raw, natural and synthetic, including latex and carbon black.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014. Published by BSI Standards Limited 2014

ISBN 978 0 580 80801 2

ICS 83.040.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 April 2014.

Amendments issued since publication

Date	Text affected
------	---------------

TECHNICAL
SPECIFICATION

ISO/TS
16095

First edition
2014-04-01

**Reclaimed rubber derived from
products containing mainly natural
rubber — Evaluation procedure**

*Caoutchouc régénéré dérivé principalement de produits contenant du
caoutchouc naturel — Méthode d'évaluation*



Reference number
ISO/TS 16095:2014(E)

© ISO 2014



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Sampling and sample preparation	1
4 Physical and chemical tests on raw rubber	2
4.1 Mooney viscosity	2
4.2 Acetone extract	2
4.3 Ash	2
4.4 Carbon black	2
4.5 Rubber content	2
5 Preparation of test mix for evaluation	2
5.1 Standard test formulation	2
5.2 Mixing procedure — Mixing with a laboratory mill	3
6 Evaluation of vulcanization characteristics by a curemeter test	4
6.1 Using an oscillating disc curemeter	4
6.2 Using a rotorless curemeter	5
7 Evaluation of Mooney viscosity of test mixes	5
8 Evaluation of tensile stress-strain properties of vulcanized test mixes	5
9 Evaluation of Shore hardness of vulcanized test mixes	5
10 Test report	6

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*.

NOTE 1 ISO/TC 45/SC 3 decided to publish a Technical Specification, because the result of the interlaboratory test procedure (ITP) to validate the evaluation procedure on reclaimed natural rubber may be dubious.

NOTE 2 If the result of this ITP shows that the procedure is reproducible and reproducible, then this Technical Specification will be converted into International Standard.

Reclaimed rubber derived from products containing mainly natural rubber — Evaluation procedure

1 Scope

This Technical Specification defines

- the physical and chemical tests on raw reclaimed natural rubber, and
- the standard materials, standard test formulations, equipment, and processing methods for evaluating the vulcanization characteristics, and the mechanical properties of reclaimed natural rubber.

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 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 1408:1995, *Rubber — Determination of carbon black content — Pyrolytic and chemical degradation methods*

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*

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)*

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

ASTM D 17-13, *Standard Test Methods for Rubber Products — Chemical Analysis*

3 Sampling and sample preparation

- 3.1 Take a laboratory sample of approximately 1,5 kg by the method described in ISO 1795.
- 3.2 Prepare the test sample in accordance with ISO 1795.