INTERNATIONAL STANDARD

ISO 1419

Fourth edition
2019-05

Rubber- or plastics-coated fabrics — Accelerated-ageing tests

Supports textiles revêtus de caoutchouc ou de plastique — Essais de vieillissement accéléré

Reference number
ISO 1419:2019(E)

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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Foreword

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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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 4, *Products other than hoses*.

This fourth edition cancels and replaces the third edition (ISO 1419:2018), of which it constitutes a minor revision.

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

— the sentence in 6.2.1 and 6.4 has been changed to ‘relative humidity of not less than 95 %’.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The ageing of coated fabrics consists in subjecting test pieces, with previously determined properties, to a controlled deteriorating influence for a known period. The selection of the most appropriate test method(s), ageing time and temperature will depend on the purpose of the test and the type of coated fabric. The properties used to measure the deterioration of coated fabrics may be strength properties, flexing, blocking or any other desired physical or chemical property. By selection of appropriate methods of test, the properties can be investigated.

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Rubber- or plastics-coated fabrics — Accelerated-ageing tests

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 and to ensure compliance with any national regulatory conditions.

1 Scope

This document describes four methods of assessing the resistance of coated fabrics to deterioration by accelerated ageing.

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 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 2231, *Rubber- or plastics-coated fabrics — Standard atmospheres for conditioning and testing*

ISO 2286-1, *Rubber- or plastics-coated fabrics — Determination of roll characteristics — Part 1: Methods for determination of length, width and net mass*

ISO 2286-2, *Rubber- or plastics-coated fabrics — Determination of roll characteristics — Part 2: Methods for determination of total mass per unit area, mass per unit area of coating and mass per unit area of substrate*

3 Terms and definitions

No terms and definitions are listed in this document.

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/

4 Method A: Loss of volatiles on heating of plasticized-PVC-coated fabrics

4.1 General

As a result of natural ageing, PVC-coated fabrics may lose plasticizer by volatilization, and in time this will have an adverse effect on the performance of the coating. The extent to which a particular material will be so affected will depend on the formulation of the coating, so it is desirable to assess this property. The method described is designed to accelerate the loss of volatiles by exposing test pieces to an elevated temperature, followed by determination of the loss in mass of the coating. The procedure shall be in accordance with ISO 188.

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