INTERNATIONAL STANDARD

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Rubber- or plastics-coated fabrics — Low-temperature impact test

Supports textiles revêtus de caoutchouc ou de plastique — Essai de choc à basse température

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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 (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 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 third edition cancels and replaces the second edition (ISO 4646:1989), which has been technically revised.

The main changes are as follows:

— Clause 3, "Terms and definitions", has been added, and the subsequent clauses have been renumbered;

— in 4.1, another type of impact tester which is generally used in the industries has been added in Figure 1 as b);

— in 4.3, Dichlorodifuloromethane has been replaced with methylcyclohexane due to its toxicity, and other heat-transfer mediums have also been updated.

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.

Rubber- or plastics-coated fabrics — Low-temperature impact test

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 specifies a procedure for determining the lowest temperature at which rubber- or plastics-coated fabrics will not exhibit fractures or coating cracks when subjected to specific impact conditions.

Rubber-or plastics-coated fabrics are used in many applications involving low-temperature flexing with or without impact. Data obtained by this method can be used to predict the behaviour of these coated fabrics at low temperatures only in the applications in which the conditions of deformation are similar to those specified in the method.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2231, *Rubber- or plastics-coated fabrics — Standard atmospheres for conditioning and testing*

ISO 2286-3, *Rubber- or plastics-coated fabrics — Determination of roll characteristics — Part 3: Method for determination of thickness*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Apparatus and materials

Typical two types of impact testers which are generally used in the industries are shown in Figure 1 a) and b). Some other testers can be commercially available, however, the apparatus used shall meet the requirements specified below for certain components.

4.1 Test piece clamps and striking arm, it shall be designed to hold the test piece(s) as cantilever beam(s). Each individual test piece shall be held firmly and securely in the clamp without causing distortion to the test piece.

The striking edge shall move relative to the test piece(s) along a trajectory normal to the upper surface of the test piece(s) at a linear testing speed of 1,8 m/s to 2,1 m/s at impact and during at least the following 6 mm of travel after impact. In order to maintain this velocity consistently within the heat-