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**Rubber, vulcanized — Determination  
of static adhesion to textile cord —  
H-pull test**

*Caoutchouc vulcanisé — Détermination de l'adhérence statique au  
câblé textile — Essai d'arrachement en H*





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# Contents

|  | Page      |
|--|-----------|
| <b>Foreword</b> .....  | <b>iv</b> |
| <b>1 Scope</b> .....   | <b>1</b>  |
| <b>2 Normative references</b> .....  | <b>1</b>  |
| <b>3 Terms and definitions</b> .....   | <b>1</b>  |
| <b>4 Principle</b> .....   | <b>2</b>  |
| <b>5 Materials</b> .....   | <b>2</b>  |
| <b>6 Apparatus</b> .....   | <b>2</b>  |
| <b>7 Calibration</b> .....   | <b>6</b>  |
| <b>8 Test piece</b> .....  | <b>6</b>  |
| 8.1 Dimensions.....  | 6         |
| 8.2 Preparation.....   | 6         |
| 8.3 Number of test pieces.....   | 9         |
| <b>9 Time interval between vulcanization and testing</b> .....               | <b>9</b>  |
| <b>10 Conditioning of test pieces</b> .....                                  | <b>9</b>  |
| <b>11 Test temperature</b> .....   | <b>9</b>  |
| <b>12 Procedure</b> .....  | <b>9</b>  |
| 12.1 Testing at standard laboratory temperature.....                         | 9         |
| 12.2 Testing at elevated temperature.....                                    | 10        |
| <b>13 Expression of results</b> .....  | <b>10</b> |
| <b>14 Test report</b> .....  | <b>10</b> |
| <b>Annex A (informative) Preparation of silicone-rubber-faced bars</b> ..... | <b>11</b> |
| <b>Annex B (normative) Calibration schedule</b> .....                        | <b>13</b> |

## 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](http://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](http://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](http://www.iso.org/iso/foreword.html).

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

This third edition cancels and replaces the second edition (ISO 4647:2010), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

- The Normative references have 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](http://www.iso.org/members.html).

# Rubber, vulcanized — Determination of static adhesion to textile cord — H-pull test

**WARNING 1** — 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 determine the applicability of any other restrictions.

**WARNING 2** — Certain procedures specified in this document 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

This document specifies a method for the determination of the static adhesion of textile cord to vulcanized rubber using the H-pull test. It is applicable to cords made from natural or man-made fibres.

The property levels obtained with this method are affected considerably by the history of the cord and the rubber compound. The method yields data, however, on which a judgement as to the service quality of the material can be based.

The method is primarily intended for use with tyre cord. However, it can be applied, if desired, to similar cords for use in other rubber products, but it is limited to cords of linear density not exceeding 800 mg/m (tex).

## 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 5893, *Rubber and plastics test equipment — Tensile, flexural and compression types (constant rate of traverse) — Specification*

ISO 18899:2013, *Rubber — Guide to the calibration of test equipment*

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

## 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/>