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## Conveyor belts — Adhesion between constitutive elements — Test methods

*Courroies transporteuses — Adhérence entre éléments constitutifs —  
Méthodes d'essai*



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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](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 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 3, *Conveyor belts*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 188, *Conveyor belts*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 252:2007), which has been technically revised.

The main changes are as follows:

- former [Figure 1](#) was deleted;
- the requirements regarding autographic record of force have been modified (see [7.1](#) and [7.2](#));
- the sentence “Such a separation should be noted, but should not be considered as representative of the adhesion strength.” was deleted (former [6.1](#) and [6.2](#)).

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).

# Conveyor belts — Adhesion between constitutive elements — Test methods

## 1 Scope

This document specifies two test methods, A and B, for determining the adhesion strength between constitutive elements of a conveyor belt, i.e. between plies and between covers and carcass. Basic test conditions are in conformity with ISO 36.

It is applicable to all types of construction of conveyor belting with the exception of belts containing steel cord reinforcement, and textile-reinforced belts with a full-thickness tensile strength of less than 160 N/mm. It is not suitable or valid for light conveyor belts as described in ISO 21183-1<sup>[1]</sup>.

**NOTE** Methods A and B are alternative options, but the mean adhesive force values calculated for the two methods can be different. Also, as both methods might not be equally suitable for all belt constructions, it is advisable that the advice of the belt manufacturer be sought.

## 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 36, *Rubber, vulcanized or thermoplastic — Determination of adhesion to textile fabrics*

ISO 6133, *Rubber and plastics — Analysis of multi-peak traces obtained in determinations of tear strength and adhesion strength*

ISO 18573, *Conveyor belts — Test atmospheres and conditioning periods*

## 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 Principle

The mean force required to strip the covers from the carcass, and also each ply from the next, is determined using a constant rate of traverse machine.

## 5 Apparatus

A suitable power-driven tensile testing machine, conforming to ISO 36, shall be used.