



SLOVENSKI STANDARD oSIST prEN ISO 252:2022

01-julij-2022

Naprave za kontinuirni transport - Trakovi tračnih transporterjev - Sprijetost osnovnih sestavnih elementov - Preskusne metode (ISO/DIS 252:2022)

Conveyor belts — Adhesion between constitutive elements — Test methods (ISO/DIS 252:2022)

Fördergurte – Lagenhaftung zwischen den Bestandteilen – Prüfverfahren (ISO/DIS 252:2022)

Courroies transporteuses Adhérence entre éléments constitutifs - Méthodes d'essai (ISO/DIS 252:2022)

Ta slovenski standard je istoveten z: prEN ISO 252

ICS:

53.040.20	Deli za transporterje	Components for conveyors
-----------	-----------------------	--------------------------

oSIST prEN ISO 252:2022

en,fr,de

DRAFT INTERNATIONAL STANDARD

ISO/DIS 252

ISO/TC 41/SC 3

Secretariat: SAC

Voting begins on:
2022-05-11Voting terminates on:
2022-08-03

Conveyor belts — Adhesion between constitutive elements — Test methods

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

ICS: 53.040.20

iTeh STANDARD PREVIEW
(standards.iteh.ai)

oSIST prEN ISO 252:2022

<https://standards.iteh.ai/catalog/standards/sist/c645a6b1-d004-4a5e-a482-90dddb90774/osist-pren-iso-252-2022>

This document is circulated as received from the committee secretariat.

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

ISO/CEN PARALLEL PROCESSING



Reference number
ISO/DIS 252:2022(E)

© ISO 2022

iTeh STANDARD PREVIEW (standards.iteh.ai)

oSIST prEN ISO 252:2022
<https://standards.iteh.ai/catalog/standards/sist/c645a6b1-d004-4a5e-a482-90dddb90774/osist-pren-iso-252-2022>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	1
6 Test pieces	2
6.1 Time between manufacture and test.....	2
6.2 Shape and dimensions.....	2
6.3 Number.....	2
6.4 Selection of test pieces from sample.....	2
6.5 Conditioning.....	2
7 Procedure	2
7.1 Method A (see Figure 1).....	2
7.2 Method B (see Figure 2).....	3
8 Expression of results	5
8.1 Examination of traces for longitudinal test pieces.....	5
8.2 Examination of traces for transverse test pieces.....	5
9 Test report	5
Bibliography	6

oSIST prEN ISO 252:2022

<https://standards.iteh.ai/catalog/standards/sist/c645a6b1-d004-4a5e-a482-90dddb90774/osist-pren-iso-252-2022>

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.

ISO 252 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 3, *Conveyor belts*.

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

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

The figure of position of line of separation of plies was deleted because it is very difficult to maintain the shapes of the figure. (the third edition of Subclause 5.2)

The sentence of “make an autographic record of the force required to strip a further 100 mm” was changed to “make an autographic record of the force required to strip a enough length to obtain more than 8 points of peak force”. (Subclause 7.1 and 7.2)

The sentence of “Such a separation should be noted, but should not be considered as representative of the adhesion strength.” was deleted. (the third edition of Subclause 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.

Conveyor belts — Adhesion between constitutive elements — Test methods

1 Scope

This International Standard 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^[1].

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 terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

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

Suitable power-driven tensile testing machine, conforming to ISO 36.

6 Test pieces

6.1 Time between manufacture and test

The time between completion of production and the commencement of testing shall be not less than 24 h; this period shall include the conditioning periods given in 5.5.

6.2 Shape and dimensions

Each test piece shall consist of a strip of belting of rectangular cross-section with clean-cut edges, $(25 \pm 0,5)$ mm wide and 200 mm minimum in length, so as to permit a length of at least 100 mm to be stripped.

6.3 Number

For both methods, A and B, two test pieces in the longitudinal direction shall be used.

The test may also be conducted with two transverse test pieces, if agreed between the manufacturer and purchaser.

6.4 Selection of test pieces from sample

The test pieces shall be taken not less than 100 mm from the edges of the available belt sample and from places as widely spaced as possible.

6.5 Conditioning

Condition the test pieces in accordance with ISO 18573, using either atmosphere D or atmosphere E, and then carry out the tests immediately after completion of the conditioning period.

7 Procedure

7.1 Method A (see Figure 1)

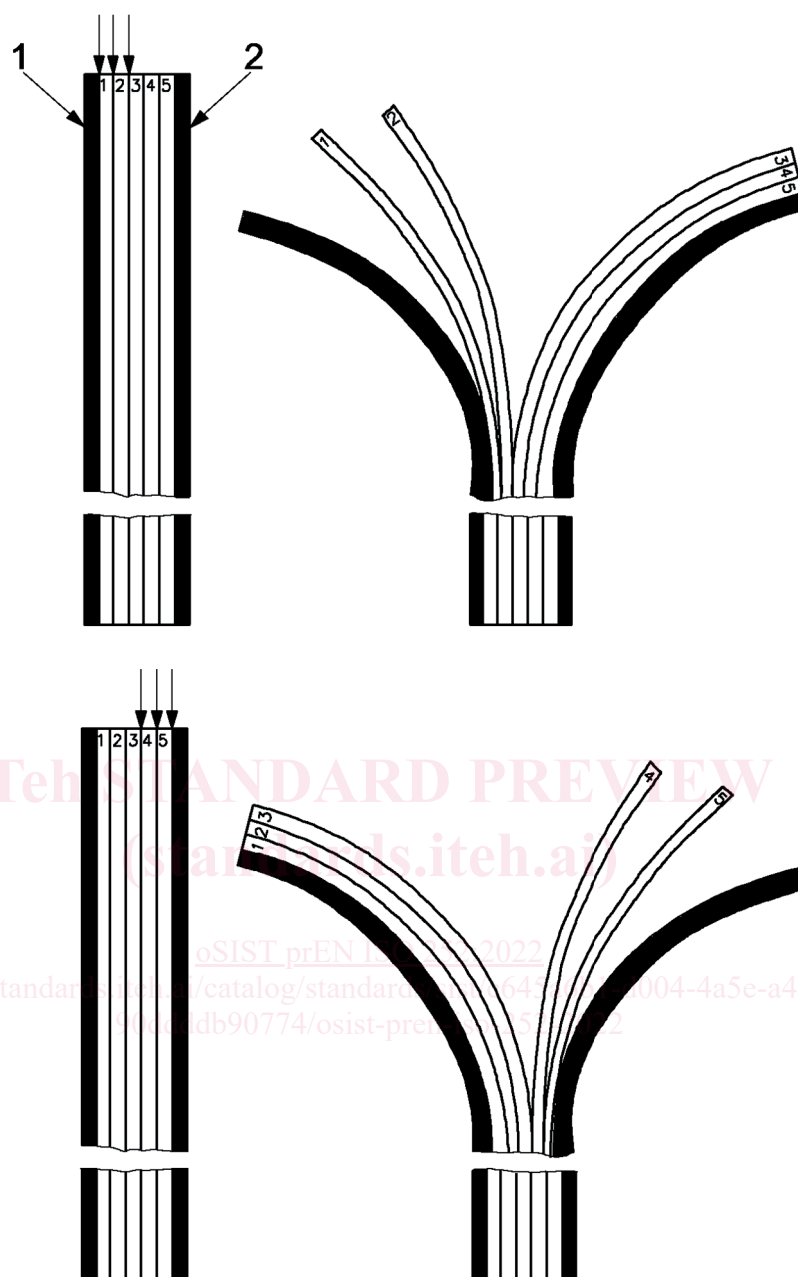
At one end of the longitudinal test piece, separate the top cover from the first ply for a distance appropriate to the test grips to be used. Fix the separated ends in the grips of the tensile testing machine and make an autographic record of the force required to strip a enough length to obtain more than 8 points of peak force with a rate of traverse of the driven jaw of (100 ± 10) mm/min. The test piece shall be unsupported.

Repeat this procedure using the same test piece for each consecutive ply up to the middle of the test piece.

Carry out a similar series of tests on a second longitudinal test piece but commencing with the bottom cover.

If the test is to be carried out on transverse test pieces, conduct the test in the same manner.

Any separation occurring outside the plane of contact between the two components, for example, inside one of the components (such as a cover) subjected to the test, is considered as a rupture of the material which constitutes the component.



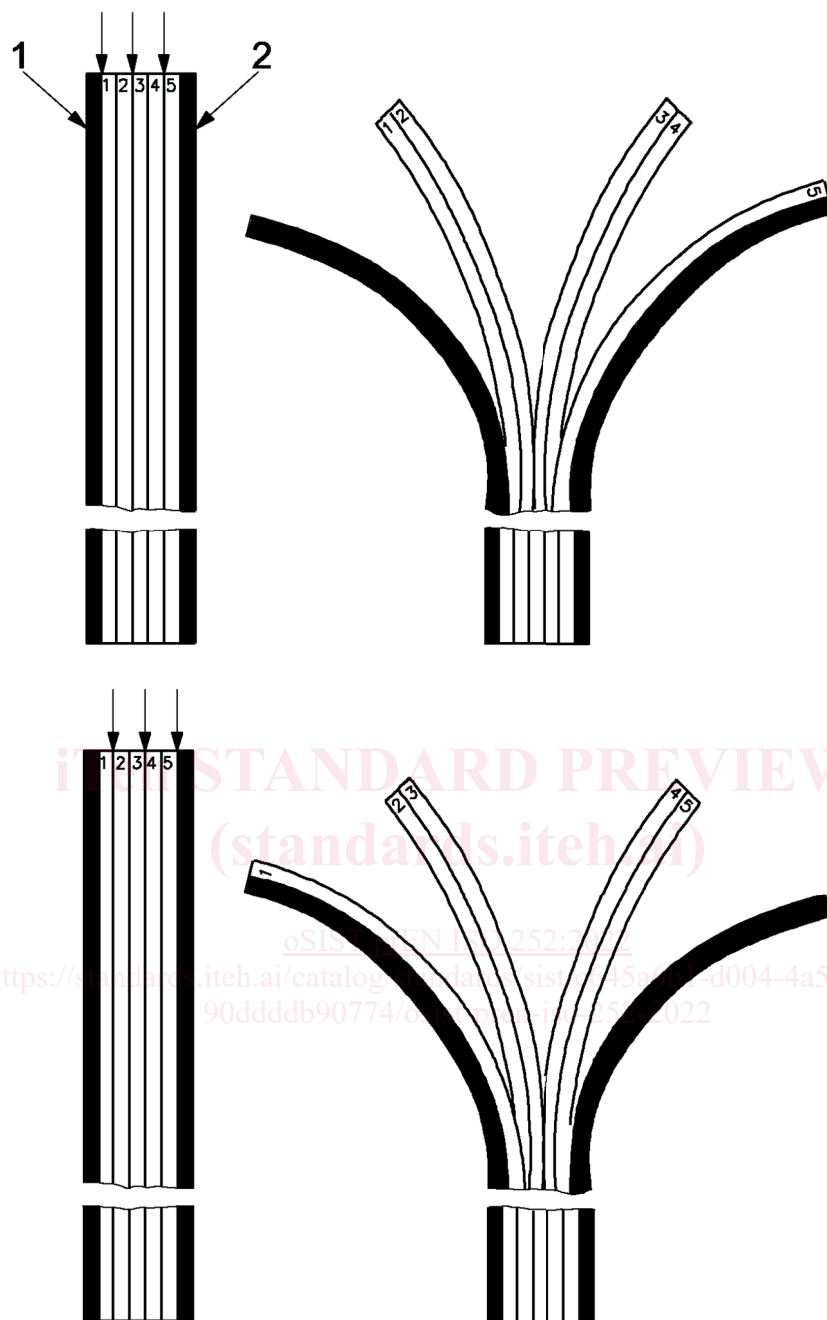
Key

- 1 top cover
- 2 bottom cover

Figure 1 — Sequence of separation of components for method A (5-ply belt shown as example)

7.2 Method B (see Figure 2)

At one end of the longitudinal test piece, separate the top cover from the first ply for a suitable distance appropriate to the test grips to be used. Fix the separated ends in the grips of the tensile testing machine and make an autographic record of the force required a enough length to obtain more than 8 points of peak force with a rate of traverse of the driven jaw of (100 ± 10) mm/min. The test piece shall be unsupported.

**Key**

- 1 top cover
- 2 bottom cover

Figure 2 — Sequence of separation of components for method B (5-ply belt shown as example)

Repeat this procedure using the same test piece, stripping consecutively two unseparated plies from the remainder of the test piece.

Carry out a similar series of tests on a second longitudinal test piece but commencing by separating the unseparated top cover and first ply from the second ply.

If the test is to be carried out on transverse test pieces, conduct the test in the same manner.