

## **Conveyor belts with a textile carcass - Total belt thickness and thickness of constitutive elements - Test methods**

Conveyor belts with a textile carcass - Total belt  
thickness and thickness of constitutive elements -  
Test methods

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 583:2007 sisaldab Euroopa standardi EN ISO 583:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 21.08.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 583:2007 consists of the English text of the European standard EN ISO 583:2007.</p> <p>This document is endorsed on 21.08.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p><b>Käsitlusala:</b></p> <p>This International Standard specifies test methods for the determination of total belt thickness and the thickness of constitutive elements of conveyor belts having a textile carcass. The constitutive elements include the covers, the carcass and interlayers, i.e. the material between adjoining plies. This International Standard is not suitable or valid for light conveyor belts as described in ISO 21183-1 [1].</p>	<p><b>Scope:</b></p> <p>This International Standard specifies test methods for the determination of total belt thickness and the thickness of constitutive elements of conveyor belts having a textile carcass. The constitutive elements include the covers, the carcass and interlayers, i.e. the material between adjoining plies. This International Standard is not suitable or valid for light conveyor belts as described in ISO 21183-1 [1].</p>
--	--

ICS 53.040.20

Võtmesõnad:

English Version

**Conveyor belts with a textile carcass - Total belt thickness and  
thickness of constitutive elements - Test methods (ISO  
583:2007)**

Courroies transporteuses à carcasse textile - Épaisseur  
totale de la courroie et épaisseur des éléments constitutifs -  
Méthodes d'essai (ISO 583:2007)

Textilfördergurte - Gesamtdicke und der Dicke der  
Aufbauelemente - Prüfverfahren (ISO 583:2007)

This European Standard was approved by CEN on 23 May 2007.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

## Foreword

This document (EN ISO 583:2007) has been prepared by Technical Committee ISO/TC 41 "Pulleys and belts (including veebelts)" in collaboration with Technical Committee CEN/TC 188 "Conveyor belts", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2007, and conflicting national standards shall be withdrawn at the latest by December 2007.

This document supersedes EN ISO 583-1:1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Endorsement notice

The text of ISO 583:2007 has been approved by CEN as EN ISO 583:2007 without any modifications.

---

---

**Conveyor belts with a textile carcass —  
Total belt thickness and thickness of  
constitutive elements — Test methods**

*Courroies transporteuses à carcasse textile — Épaisseur totale de la  
courroie et épaisseur des éléments constitutifs — Méthodes d'essai*



**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword.....	iv
<b>1 Scope .....</b>	<b>1</b>
<b>2 Determination of total belt thickness.....</b>	<b>1</b>
2.1 Apparatus .....	1
2.2 Test piece .....	1
2.3 Measurement points .....	2
2.4 Procedure .....	3
2.5 Expression of results .....	3
<b>3 Determination of thickness of covers.....</b>	<b>3</b>
3.1 General.....	3
3.2 Method used when covers can be removed completely from carcass.....	3
3.3 Method used when covers cannot be removed completely from carcass .....	5
<b>4 Determination of carcass thickness .....</b>	<b>6</b>
4.1 Carcass thickness without covers.....	6
4.2 Carcass thickness with covers .....	6
4.3 Expression of results .....	6
<b>5 Determination of thickness of interlayer.....</b>	<b>6</b>
5.1 General.....	6
5.2 Method used when elastomeric material in interlayer can be removed completely from adjacent fabric ply .....	6
5.3 Method for use when elastomeric material in interlayer cannot be separated completely from adjacent fabric ply .....	7
<b>6 Test report .....</b>	<b>8</b>
<b>Bibliography .....</b>	<b>9</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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 583 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 3, *Conveyer belts*.

This third edition of ISO 583 cancels and replaces ISO 583-1:1999, of which it constitutes a technical revision. It also incorporates the Technical Corrigendum, ISO 583-1:1999/Cor.1:2006.



# Conveyor belts with a textile carcass — Total belt thickness and thickness of constitutive elements — Test methods

## 1 Scope

This International Standard specifies test methods for the determination of total belt thickness and the thickness of constitutive elements of conveyor belts having a textile carcass. The constitutive elements include the covers, the carcass and interlayers, i.e. the material between adjoining plies.

This International Standard is not suitable or valid for light conveyor belts as described in ISO 21183-1 [1].

## 2 Determination of total belt thickness

### 2.1 Apparatus

The apparatus shall consist of a flat, rigid baseplate, on which the test piece rests, and a gauge having a flat circular foot, 10 mm in diameter, by means of which a specified pressure is applied to the test piece.

The gauge shall be capable of measuring to at least 0,1 mm.

The pressure applied shall be  $(22 \pm 5)$  kPa for materials with a hardness equal to or greater than 35 IRHD; otherwise, the pressure shall be  $(10 \pm 2)$  kPa.

NOTE The masses needed to give these specified pressures using a 10 mm diameter foot are 176 g and 80 g, respectively.

### 2.2 Test piece

Either test piece 1 or test piece 2, according to the following, shall be used.

**Test piece 1:** cut a rectangular piece of full-width belt, designated as dimension  $L$ , with a length of 50 mm, as shown in Figure 1.



Figure 1 — Test piece 1 (rectangular)