



# SLOVENSKI STANDARD SIST EN ISO 583-1:2001

01-februar-2001

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Conveyor belts with a textile carcass - Total thickness and thickness of elements - Part 1:  
Methods of test (ISO 583-1:1999)

Textilfördergurte - Gesamtdicke und Dicke der Einzelkomponenten - Teil 1:  
Prüfverfahren (ISO 583-1:1999)

Courroies transporteuses a carcasse textile - Epaisseur totale et épaisseur des éléments  
- Partie 1: Méthodes d'essai (ISO 583-1:1999)

Ta slovenski standard je istoveten z: **EN ISO 583-1:1999**

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## **ICS:**

53.040.20      Deli za transporterje      Components for conveyors

**SIST EN ISO 583-1:2001**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN ISO 583-1

December 1999

ICS 53.040

English version

Conveyor belts with a textile carcass - Total thickness and  
thickness of elements - Part 1: Methods of test (ISO 583-1:1999)

Courroies transporteuses à carcasse textile - Epaisseur  
totale et épaisseur des éléments - Partie 1: Méthodes  
d'essai (ISO 583-1:1999)

Textilfördergurte - Gesamtdicke und Dicke der  
Einzelkomponenten - Teil 1: Prüfverfahren (ISO 583-  
1:1999)

This European Standard was approved by CEN on 3 October 1999.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## Foreword

The text of EN ISO 583-1:1999 has been prepared by Technical Committee CEN/TC 188 "Conveyor belts", the secretariat of which is held by BSI, in collaboration with Technical Committee ISO/TC 41 "Pulleys and belts (including veebelts)".

This European Standard supersedes ISO 583:1990.

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 June 2000, and conflicting national standards shall be withdrawn at the latest by June 2000.

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

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## 1 Scope

This European Standard describes four methods for the measurement of thickness of conveyor belts having a textile carcass.

Method A describes a method for the determination of total belt thickness.

Method B describes a method for the determination of thickness of covers.

Method C describes a method for the determination of thickness of carcass.

Method D describes a method for the determination of the thickness of the interlayers.

This European Standard is applicable only to belts having a textile carcass.

Methods are included which are suitable for belt constructions where the covers can be removed, and for constructions where covers cannot be removed.

This standard is not suitable or valid for light conveyor belts as described in EN 873.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to, or revisions of, any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

SIST EN ISO 583-1:2001	
EN 873	Light conveyor belts - Principal characteristics and applications <a href="http://standards.itc.cat/catalog/standards/sist/c398ff78-3472-4282-a242-e4a0155db599/sist-en-iso-583-1-2001">http://standards.itc.cat/catalog/standards/sist/c398ff78-3472-4282-a242-e4a0155db599/sist-en-iso-583-1-2001</a>
ISO 4648:1991	Rubber, vulcanized or thermoplastic - Determination of dimensions of test pieces and products for test purposes.

## 3 Method A - Determination of total belt thickness

### 3.1 Apparatus

A dial gauge micrometer, graduated at least every 0,1 mm, with flat feet, a circular foot 10 mm in diameter, and exerting a pressure of  $(22 \pm 5)$  kPa on the test piece, or of  $(10 \pm 2)$  kPa according to the material, and as specified in ISO 4648.

### 3.2 Test Piece

For the measurement of total belt thickness either Test Piece 1 or Test Piece 2 shall be used:

Test Piece 1: cut a rectangular piece of full width belt, with a length of 50 mm (see Figure 1).

Test Piece 2: cut a wedge shaped piece of full width belt, as shown in Figure 2.

Dimensions in millimetres

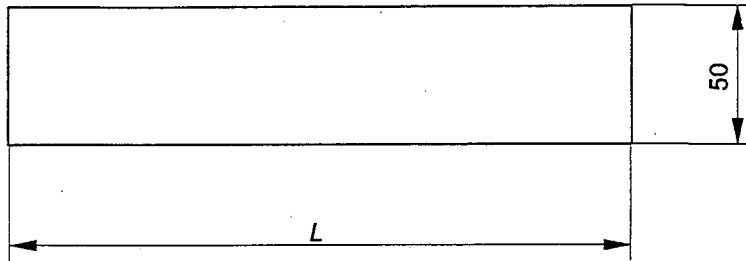


Figure 1 - Test Piece 1 (Rectangular)

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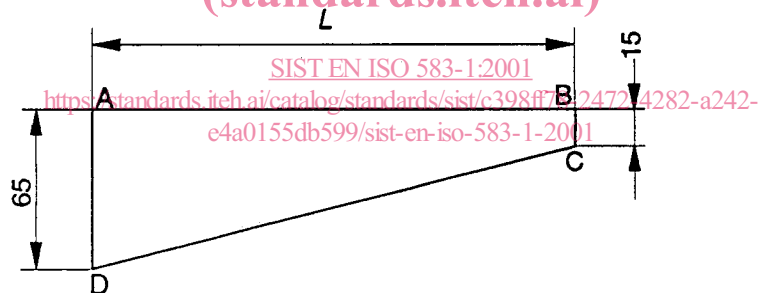
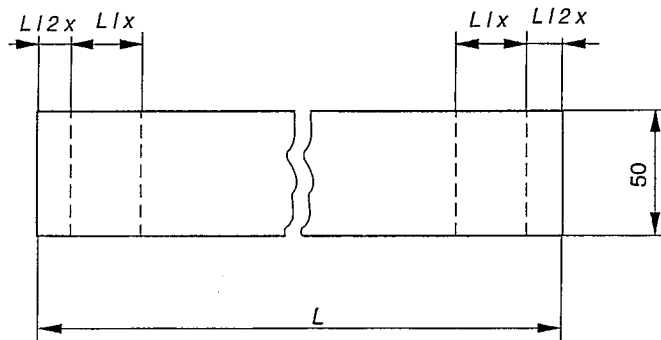


Figure 2 - Test Piece 2 (Wedge shaped)

### 3.3 Measurement Points

The measurement points shall be spaced equidistantly along the long axis of the test piece (i.e. the belt width) as shown in Figure 3.

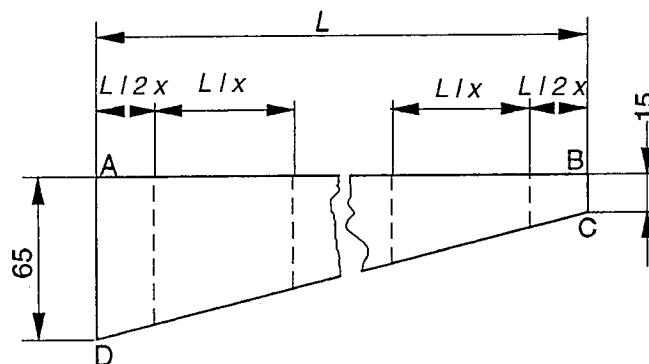
Dimensions in millimetres



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**Figure 3 - Measurement Points**



Determine the minimum number of measurement points ( $x$ ) according to the width of the belt ( $L$ ) as follows:

Belt width, $L$ in millimeters	Minimum number of measurement points ( $x$ )
$L \leq 650$	3
$650 < L \leq 1200$	5
$L > 1200$	8

### 3.4 Procedure

Measure the total thickness ( $d$ ) of the test piece at each of the measurement points specified in 3.3, in accordance with Method A of ISO 4648:1991, using the pressure specified in 3.1.

### 3.5 Expression of Results

Calculate the arithmetic mean of the individual measurements taken in 3.4 and express this as the total belt thickness in millimetres, to the nearest 0,1 mm.

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### 4 Method B - Determination of thickness of covers

NOTE The thickness of the covers can be obtained by two methods, depending upon whether or not the covers can be removed completely from the carcass.

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#### 4.1 Method B1 - for use when covers can be removed completely from the carcass

##### 4.1.1 Principle

The thickness of a test piece is measured at a number of points, according to belt width, before and after each of the covers has been removed. The cover thickness is calculated by subtraction.

##### 4.1.2 Apparatus

A dial gauge micrometer as specified in 3.1.

##### 4.1.3 Test Piece

Test Piece 1 as specified in 3.2 and Figure 1.

##### 4.1.4 Measurement Points

As specified in 3.3.

##### 4.1.5 Procedure

Measure the total thickness ( $d$ ) of the test piece at each of the measurement points specified in 3.3, in accordance with Method A of ISO 4648:1991, using the pressure specified in 3.1.