
**Light conveyor belts — Tolerances on
widths and lengths of cut light conveyor
belts**

*Courroies transporteuses légères — Tolérances sur largeurs et longueurs
des courroies transporteuses légères à bords tranchés*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 15147:1999

[https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-
b540954ed7a1/iso-15147-1999](https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999)



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.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 15147:1999

<https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999>

© ISO 1999

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 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

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 3.

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

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 15147 was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 3, *Conveyor belts*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

iTeh STANDARD PREVIEW

Throughout the text of this standard, read "(standards.iteh.ai)" to mean "...this International Standard...".

ISO 15147:1999

<https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999>

Contents

	Page
Foreword	v
1 Scope	1
2 Normative reference	1
3 Widths	1
4 Lengths	2
5 Methods of measurement and verification of dimensions	2

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 15147:1999](https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999)

<https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999>

Foreword

The text of EN ISO 15147:1999 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2000, and conflicting national standards shall be withdrawn at the latest by January 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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO 15147:1999](https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999)

<https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 15147:1999

<https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999>

1 Scope

This standard specifies methods for the measurement of widths and lengths of cut light conveyor belts as described in EN 873 and specifies the tolerances on the dimensions.

NOTE The widths and lengths of light conveyor belts are not standardized.

2 Normative reference

This European Standard incorporates by dated or undated references, 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.

EN 873: Light conveyor belts - Principal characteristics and applications

3 Widths

When measured in accordance with 5.1, the difference between the measured width and the specified cut width shall not vary by more than the tolerance specified in table 1.

NOTE It is recommended that actual cut widths of belt should be specified in incremental steps of 50 mm for cut widths up to 1 m, and in incremental steps of 100 mm for cut widths over 1 m. [ISO 15147:1999](https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999)

<https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999>

Table 1: Tolerances on cut widths of light conveyor belts

Width in millimetres		For belts containing materials with low moisture absorption (e.g. polyester)	For belts with higher moisture absorption (e.g. cotton or polyamide)
over	Up to and including		
-	200	± 1 mm	± 2 mm
200	600	± 2 mm	± 3 mm
600	1000	± 4 mm	± 5 mm
1000	2000	± 6 mm	± 6 mm
2000	4000	± 7 mm	± 0,3 % of width
4000	-	± 8 mm	± 0,3 % of width

4 Lengths

4.1 Endless belts and open-ended belts with ends prepared for splicing

When measured in accordance with 5.2, the difference between the measured endless-length and the specified endless-length shall not vary by more than the tolerance specified in table 2.

Table 2: Tolerances on lengths of endless belts and of open-ended belts with ends prepared for splicing

Length m		Tolerance
over	up to and including	
-	2	±10 mm
2	7	±20 mm
7	-	± 0,3 %

iTeh STANDARD PREVIEW
(standards.iteh.ai)

4.2 Open-ended belts with ends not prepared for splicing (slab belting)

When measured in accordance with 5.3, the difference between the measured length and the manufacturers stated length shall not vary by more than $\begin{matrix} +2,5\% \\ 0 \end{matrix}$.

ISO 15147:1999
<https://standards.iteh.ai/catalog/standards/sist/9b11641e-17df-43fa-9351-b540954ed7a1/iso-15147-1999>

5 Methods of measurement and verification of dimensions

5.1 Determination of the cut width

NOTE The measurements at 5.2 or 5.3 may be taken at the same time as the measurements at 5.1.

5.1.1 Unroll the conveyor belt on a flat hard surface free from tension.

5.1.2 Measure at three equidistant locations, throughout the length of the belt and at right angles to the cut edges, the width of the conveyor belt to the nearest 0,5 mm, using a suitable linear measure (e.g. a steel tape).

5.2 Determination of the length of an endless light conveyor belt

5.2.1 Lay the conveyor belt flat, free from tension.

5.2.2 Mark the inside edge of the belt with an appropriate marker to indicate the point at which measurements begin.

Using a steel tape measure, make individual measurements along the flat part of the belt only (see figure 1).

Rotate the belt and make consecutive measurements along the flat part of the belt (\overline{BC} ; \overline{CD} ; etc.) (see Figure 1), continuing until the last measurement can be taken e.g. \overline{XA} .

5.2.3 Calculate the endless length of the belt as the sum of all the individual measurements minus the product of π and the belt thickness,

$$\text{i.e. } \left[\overline{AB} + \overline{BC} + \overline{CD} \dots + \overline{XA} \right] - [\pi \cdot a];$$

where a is the belt thickness.

NOTE 1 The calculation with the subtraction sum $[\pi \cdot a]$ is strictly correct only for conveyor belts with a symmetrical construction, i.e. with the neutral line in the belt middle. It will in most cases be sufficiently exact also for conveyor belts with an asymmetrical construction. However, short or thick conveyor belts with asymmetrical constructions may need a more precise calculation. The subtraction sum then becomes $2[\pi a_i]$ where a_i is the distance between the neutral line and the inner belt surface (running surface). The value of a_i has to be inquired of the belt manufacturer.

(For symmetrical belt constructions $a_i = \frac{a}{2}$ and $2[\pi a_i]$ becomes πa .

This value is the internal endless-length of the belt.

NOTE 2 In cases where the method of measurement described above is not applicable, e.g. when the endless belt is very short, another suitable method of measurement should be agreed between belt user and supplier.

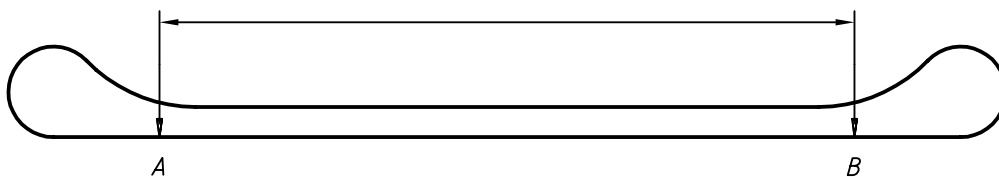


Figure 1 - Measurement of the length of an endless light conveyor belt

5.3 Determination of the length of an open-ended light conveyor belt and of slab belting

Determine the length of an open-ended light conveyor belt and of slab belting by employing any suitable mechanical, electromechanical or photoelectric means of linear measurement which does not exert any tension in to the conveyor belt and which is accurate to ${}_{0}^{+1}\%$ of the recorded or designated length.