

**Conveyor belts - Electrical conductivity - Specification
and test method (ISO 284:2012)**

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NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

**Conveyor belts - Electrical conductivity - Specification and test
method (ISO 284:2012)**

Courroies transporteuses - Conductibilité électrique -
Spécification et méthode d'essai (ISO 284:2012)

Fördergurte - Elektrische Leitfähigkeit - Spezifikation und
Prüfverfahren (ISO 284:2012)

This European Standard was approved by CEN on 30 November 2012.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 284:2012) 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 SNV.

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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 284:2003.

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

Endorsement notice

The text of ISO 284:2012 has been approved by CEN as a EN ISO 284:2012 without any modification.

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Conveyor belts — Electrical conductivity — Specification and test method

1 Scope

This International Standard specifies the maximum electrical resistance of a conveyor belt and the corresponding test method.

The test is intended to ensure that the belt is sufficiently conductive to avoid the accumulation of electrical static charge which can be developed during service use.

This International Standard is not suitable or applicable to light conveyor belts as described in ISO 21183-1^[1], the static electrical properties of which are measured by ISO 21178^[2].

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

3 Specification

The electrical resistance of the conveyor belt when tested in accordance with the method described in Clause 4 shall not exceed $3 \times 10^8 \Omega$ (300 M Ω). Lower values may be specified for special applications.

4 Test method

4.1 Principle

An electric current of specified voltage is passed via electrodes through a suitably prepared test piece taken from the belt.

4.2 Materials and apparatus

4.2.1 Sheet of insulating material, a little larger than the test piece.

4.2.2 Two cylindrical and coaxial brass electrodes, the base of one being circular and the other annular.

The dimensions and masses are given in Figure 1. The bases of these electrodes shall be machined flat and polished. A flexible insulated wire shall be connected to each electrode.

4.2.3 Ohmmeter (resistance-measuring instrument), with a range up to $10^{10} \Omega$ and accurate to $\pm 5\%$.

4.2.4 Source of direct current, adjustable to 1 000 V, and not permitting a current greater than 10 mA or causing an energy dissipation of more than 1 W in the test piece.

The source of current may be either an accumulator or a rectified, stabilized AC-power supply.