AS 1334.4:2026
ISO 703:2025

Methods of testing conveyor and elevator belting

Part 4: Determination of troughability of conveyor belting (ISO 703:2025, IDT)



AS 1334.4:2026

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- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Bureau of Steel Manufacturers of Australia
- Engineers Australia
- Minerals Council of Australia
- NSW Department of Primary Industries and Regional Development
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This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Standards Australia Committee RU-002, Conveyor And Elevator Belting, to supersede AS 1334.4:1982, *Methods of testing conveyor and elevator belting, Part 4: Determination of troughability of conveyor belting*.

The objective of this document is to specify a test method for determining the transverse flexibility (troughability) of a conveyor belt, expressed as a ratio, F/L. The method is not suitable or valid for light conveyor belts as described in ISO 21183-1.

NOTE The transverse "flexibility" determined by the method described in this document is only indirectly associated with the inverse of flexural modulus as specified in ISO 178. Nor does it take into consideration the differences in "flexibility" as exhibited by three-point and four-point bending, which takes account of the flexural strain and the thickness of the test piece.

This document is identical to and has been reproduced from ISO 703:2025, *Conveyor belts — Transverse flexibility (troughability) — Test method*.

As this document has been reproduced from an international document, a comma is to be read as a full point when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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.

This document was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 3, *Conveyor belts*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 188, *Conveyor belts*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 703:2017), which has been technically revised.

The main change is as follows: the conditioning atmospheres have been revised in 7.2.

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.

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Introduction

A large number of conveyor belts work in the shape of a trough. If a conveyor belt is too stiff transversely, it does not rest on the central idler roller when unloaded. Its balance is then unstable and it is subject to lateral travel, which can cause its destruction.

It is possible to make a section of the conveyor belt take on the shape of a trough under its own mass, by suspending the section by its edges. However, this does not necessarily indicate what happens when the conveyor belt is not carrying a load.

The results obtained from the test method specified in this document will, however, allow an assessment to be made as to whether the troughing characteristics of the conveyor belt are suitable for the intended application.

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Methods of testing conveyor and elevator belting

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1 Scope

This document specifies a test method for determining the transverse flexibility (troughability) of a conveyor belt, expressed as a ratio, F/L. The method is not suitable or valid for light conveyor belts as described in ISO 21183-1.

NOTE The transverse "flexibility" determined by the method described in this document is only indirectly associated with the inverse of flexural modulus as specified in ISO 178. Nor does it take into consideration the differences in "flexibility" as exhibited by three-point and four-point bending, which takes account of the flexural strain and the thickness of the test piece.

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

ISO 7590, *Steel cord conveyor belts — Methods for the determination of total thickness and cover thickness*

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 terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Symbols

F	vertical deflection in test piece corrected for belt thickness	mm
F_1	vertical deflection in test piece (see Figure 1 and Figure 2)	mm
L	length of test piece when laid flat (equivalent to full width of installed conveyor belt)	mm
d	thickness of the test piece (see Figure 2)	mm

5 Principle

A test piece, consisting of a transverse section of belt of length, L, is suspended at both ends with the carrying face uppermost, so that the upper edges of these ends are in the same horizontal plane.

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