STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 1334.3—1982

Methods of testing conveyor and elevator belting

Method 3: Determination of full thickness tensile strength and elongation of conveyor belting

RECONFIRMATION NOTICE

Technical Committee RU-002 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 22 January 2016.

The following are represented on Technical Committee RU-002:

Australasian Institute of Mining and Metallurgy
Australasian Plastics and Rubber Institute
Australian Chamber of Commerce and Industry
Australian Industry Group
Bureau of Steel Manufacturers of Australia
Department of Industry, Skills and Regional Development (NSW)
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Australian Standard

METHODS OF TESTING CONVEYOR AND ELEVATOR BELTING

AS 1334.3
DETERMINATION OF FULL THICKNESS TENSILE STRENGTH AND ELONGATION OF CONVEYOR BELTING

1 SCOPE. This standard sets out a method for determining the full thickness tensile strength of conveyor belting.

2 REFERENCE. This standard requires reference to AS 2193, Methods for Calibration and Grading of Force-measuring Systems of Testing Machines.

3 PRINCIPLE. An increasing load is applied to a full thickness test piece of known width until it breaks. At the break point, the load is determined and the elongation between two predetermined gauge points measured. The tensile strength per unit width and elongation are then calculated.

4 APPARATUS. A suitable tensile testing machine shall be used, capable of applying a smooth uniform force without interruption and capable of measuring the test force with an error of not more than ± 2 percent.*

It shall be fitted with an autographic load versus elongation recorder.

The machine shall be fitted with suitable grips, free to move without undue friction, the shape of which shall ensure proper alignment of the test piece, and which shall apply a uniform pressure on the gripping surfaces, yet eliminate slip or damage to the test piece during testing. The use of transverse serrated grips as illustrated in Fig. 1 is permitted. Double compartment grips as illustrated in Fig. 2 may be used where considered necessary.

The machine shall have a traverse rate of the driven grips of 100 ± 10 mm/min.

5 TEST PIECES.

5.1 General. The type of test piece shall be in accordance with Fig. 3A or Fig. 3B or Fig. 3C as chosen by the supplier.

A minimum of six test pieces, three from the longitudinal direction and three from the transverse direction cut from the full thickness of the belting shall be successfully tested.

5.2 Preparation. The test pieces shall be prepared as follows:

(a) Each test piece shall conform to the selected dimensions and shape shown in Fig. 3A, 3B or 3C, and may be made with a suitable cutting die or knife or by other means.

The cutting edge of the die or knife, which may be moistened before cutting, shall conform generally to the details shown in Fig 4(a), or Fig. 4(b).

The test piece shall be cut clean, true and square with the belt surface and free from nicks. It shall be cut with one stroke of the die and be free from drawn or pulled threads.

A test piece which is not cut cleanly or square shall be rejected.

(b) The test piece shall be cut parallel to the axis of the belting or at right-angles to the axis of the belting, depending on the direction from which the test piece is cut.

(c) No test piece shall be cut nearer to the edge of the sample than 50 mm or contain the same ply warp or weft threads, depending on the tests being carried out (see Clause 7, Note 3).

(d) If desirable because of roughness, unevenness or for other reasons, the covers in the gripping area may be buffed or removed to avoid slipping.

* This requirement is in accordance with that for a testing machine graded as Grade B of AS 2193.

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