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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 7985-2025

**Conveyor belts - Method for the determination of the tear
propagation resistance of textile conveyor belts
(English Translation)**

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Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020, Directives for standardization - Part 1. Rules for the structure and drafting of standardizing documents.

This document replaces GB/T 7985-2005 Conveyor belts - Method for the determination of the tear propagation resistance of textile conveyor belts. Compared with GB/T 7985-2005, except for structural adjustment and editorial changes, the main technical changes are as follows.

- a) Add terms and definitions (see Chapter 3);
- b) Modify the sample preparation (see 6.4; 5.4 of the 2005 edition);

c) Modify the conditioning of test samples (see 7.1; 6.1 of the 2005 edition).

This document is identical to ISO 505:2025, Conveyor belts - Method for the determination of the tear propagation resistance of textile conveyor belts.

1 Scope

This document describes a method for the determination of the tear propagation resistance of full-thickness textile conveyor belts or cores with the cover removed.

This document applies to textile conveyor belts without transverse metal mesh used in facilities where there is a risk of longitudinal tearing.

2 Normative references

The following referenced documents are indispensable for the application 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 6133, Rubber and plastics - Analysis of multi-peak traces obtained in determinations of tear strength and adhesion strength

Note: GB/T 12833-2006, Rubber and plastics - Analysis of multi-peak traces obtained in determinations of tear strength and adhesion strength (ISO 6133:1998, IDT)

ISO 18573, Conveyor belts - Test atmospheres and conditioning periods

Note: GB/T 30691-2014, Conveyor belts - Test atmospheres and conditioning periods (ISO 18573:2012, IDT)

3 Terms and definitions

No terms and definitions need to be defined in this document.

4 Principle

Stretch the test sample at a specified speed to test the force required for the initial crack in the test sample to propagate.

5 Apparatus

The tensile testing machine shall have the following basic characteristics.

- a) The measuring range of the testing machine shall be such that the measured force value is within 90% of its range;
- b) The separation speed of the two grippers shall be adjustable to (50 ± 10) mm/min;
- c) The distance between the two grippers holding the test sample shall be adjustable to at least 300 mm.

The tensile testing machine shall be equipped with a recording device for automatically plotting tear force curves.

6.1 Sampling method

The test sample shall be cut along the longitudinal direction of the belt, at a distance of not less than 50 mm from the edge of the belt.

6.2 Shape and dimensions

Shape. rectangular.

Length. 300 mm.

Width. (100 ± 1) mm.

Thickness. the thickness of the full-thickness belt or the core with the cover removed.

If, during the test, the weft thread of the test sample is pulled out instead of being broken, the test sample width shall be increased to 300 mm.

Note: Depending on the test conditions, the sample length and cut length may be appropriately increased.

6.3 Quantity

Two samples shall be used, one for grip method A and the other for grip method B (see Figure 4).

6.4 Preparation

If the test is required to be carried out without a cover, the cover of the test sample shall be removed by peeling or grinding.

If a buffer layer is present, peel off only the cover outside the gripping area within a width of 20 mm in the middle of the test sample (10 mm on each side of the longitudinal axis), without damaging the buffer layer (see Figure 1).

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