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

GB/T 17044-2020

Replacing GB/T 17044-2013

**Steel cord conveyor belts. Adhesion strength test of the cover
to the core layer**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1:1-2009:

This standard replaces GB/T 17044-2013 "Steel Cord Conveyor Belt Cover Layer and Belt Core Layer Bonding Strength Test", and GB/T 17044-

Compared with:2013, the main technical changes are as follows:

--- Added the normative reference document ISO 18573 (see Chapter 2, Chapter 2 of the:2013 edition);

---Modified the description of the minimum sample size and the direction of cutting the sample (see Chapter 5, Chapter 5 of the:2013 edition);

---Modified the test procedure (see Chapter 6, Chapter 6 of the:2013 edition):

The translation method used in this standard is equivalent to ISO 8094:2013 "Test for the Bonding Strength of Steel Cord Conveyor Belt Covering Layer and Belt Core Layer":

The Chinese documents that have a consistent correspondence with the international documents cited in this standard are as follows:

---GB/T 532-2008 Determination of the bonding strength between vulcanized rubber or thermoplastic rubber and fabric (ISO 36:2005, IDT);

---GB/T 12833-2006 Multimodal curve analysis in the determination of tear strength and adhesive strength of rubber and plastics (ISO 6133:

1998, IDT);

---GB/T 30691-2014 Conveyor belt test environment and state adjustment time (ISO 18573:2012, IDT):

This standard was proposed by the China Petroleum and Chemical Industry Federation:

This standard is under the jurisdiction of the National Belt Wheel and Belt Standardization Technical Committee Conveyor Belt Technical Committee (SAC/TC428/SC1):

Drafting organizations of this standard: Wuxi Baotong Technology Co., Ltd., Zhongde (Yangzhou) Transportation Engineering Technology Co., Ltd., Anhui Zhongyi Adhesive Tape Co., Ltd., Zhongnan Rubber Group Co., Ltd., Shandong Yihe Rubber Conveyor Belt Co., Ltd., Shandong Xiangtong Rubber and Plastic Group Co., Ltd:

Division, Qingdao University of Science and Technology:

1 Scope

This standard specifies the test method for the bond strength between the cover layer and the core layer of steel cord conveyor belts:

This standard applies to steel cord conveyor belts:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article

Pieces: For undated references, the latest version (including all amendments) applies to this document:

ISO 36 Determination of the bonding strength of vulcanized rubber or thermoplastic rubber to fabric (Rubber, vulcanized or thermoplastic-

Determination of adhesion to textile fabrics)

ISO 6133 Multimodal curve analysis in the determination of tear strength and adhesive strength of rubber and plastics (Rubber and plastics-

Analysis of multi-peak traces obtained in determination of tear strength and adhesion strength)

ISO 18573 Conveyor Belt Test Environment and Condition Adjustment Time (Conveyor belts-Test atmosphere and conditioning periods)

3 Test principle

The force required to separate the cover layer from the tape core layer by the peeling method was measured:

4 devices

The tensile testing machine with gripper meets the requirements of ISO 36 for this

equipment:

5 Sample

Take 6 samples with the following dimensions:

a) Belts without transverse members and with (or without) fabric reinforcement:

Length (lengthwise of the belt): minimum 150mm;

Width: 25mm minimum, and at least 2 steel wire ropes;

Thickness: The full thickness of the belt:

b) Belts with metal transverse parts:

Length (consistent with the direction of the wire rope): minimum 150mm;

Width: (25 ± 0.5) mm;

Thickness: The full thickness of the belt:

Along the direction parallel to the axis of the belt, a sample is cut at least 50mm away from the belt edge:

Use a knife to close the upper and lower edges of the wire rope on both sides of the sample to peel off a section of the covering layer, which should be able to ensure that the sample is clamped in the testing machine

The clamping device is firm: