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

MT/T 668-2019

**Steel cord fire resistant conveyor belting for coalmine
(English Translation)**

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1 Scope

This standard specifies the product classification, model, specifications, technical requirements, test methods, inspection rules, marking, packaging, storage, transportation of steel cord fire resistant conveyor beltings for coal mines (hereinafter referred to as "fire resistant belts").

This standard applies to steel cord fire resistant conveyor beltings used in coal mines.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document;

for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB/T 528-2009 Rubber, vulcanized or thermoplastic - Determination of tensile stress-strain properties

GB/T 3512 Rubber, vulcanized or thermoplastic - Accelerated ageing and heat resistance tests - Air-oven method

GB/T 5752 Conveyor belts - Marking

GB/T 5753 Steel cord conveyor belts - Methods for the determination of total thickness and cover thickness

GB/T 5754.2 Steel cord conveyor belts - Longitudinal traction test - Part 2.

Measurement of tensile strength

GB/T 5755 Steel cord conveyor belts - Cord-to-coating bond test - Initial test and after thermal treatment

GB/T 7983 Conveyor belts - Transverse flexibility (troughability) - Test method

GB/T 9770-2013 Steel cord conveyor belts for general use

3.1 Product category

Fire resistant belts can be divided into the following according to structural characteristics.

3.2 Model

Product models are divided according to longitudinal tensile strength, see Table 4. The specific models are as follows.

3.3.1 Width

The width of the fire resistant belt is as shown in Table 1.

3.3.2 Length

The exit-factory length of the fire resistant belt shall be determined through negotiation

4.1 Appearance quality

4.1.1

The fire resistant belt shall not have edge waves.

4.1.6

There shall be no exposed steel wire rope on the fire resistant belt.

4.2.1 Width deviation

The width limit deviation of the fire resistant belt shall comply with the provisions of Table 1.

4.2.2 Covering layer thickness

The thickness of the covering layer of the fire resistant belt shall comply with the requirements in Table 2.

4.3 Longitudinal tensile strength

The longitudinal tensile strength of the fire resistant belt shall comply with the requirements in Table 3.

4.4.1 Wire rope's bonding strength

It shall comply with the requirements of Table 4. For wire ropes with special diameters, the bonding strength before and after aging shall not be less than $(15d + 15)$ N/mm, where d is the diameter of the wire rope.

4.4.2.1 The average bonding strength between the covering layer and the adhesive layer

shall not be less than 10 kN/m.

5.1 Sample collection

Take samples, 24 h after the product is manufactured.

5.2 Appearance quality

Use visual inspection and measuring tools for inspection.

5.4 Longitudinal tensile strength test

Follow the provisions of GB/T 5754.2.

5.5 Adhesion strength test

5.5.1

The bonding strength of the steel wire rope shall be carried out in accordance with the provisions of GB/T 5755. The measurement of the total thickness of the belt and the thickness of the upper and lower covering layers shall be carried out, in accordance with the provisions of GB/T 5753. The difference between the total thickness of the belt and the thickness of the upper and lower covering layers is the diameter of steel wire rope d .

5.7 Covering layer performance test

5.7.1

The tensile properties of the covering layer shall be in accordance with the provisions of GB/T 528-2008. The specimen shall be cut using a type 2 [narrow parallel section width (4.0 ± 0.1) mm] dumbbell-shaped cutter.

5.7.2

The aging resistance of the covering layer shall be in accordance with the provisions of GB/T 3512.

5.12 Tensile strength test of static joint

The number of samples is 3 pieces. The sample size shall meet the requirements of Figure 4. The width b shall be (250 ± 30) mm. The tensile speed of the holder is (100 ± 10) mm/min. The static joint's tensile strength is calculated according to formula (1).

The result is an average of 3 test results. Please refer to Appendix E, for the joint dimensions and technical requirements of the sample.

5.16.3 Equipment and test procedures

Follow the provisions of MT/T 914.

5.16.4 Result expression

The following test results shall be recorded and calculated.

5.17 Tunnel propane combustion test method

Follow the provisions of MT/T 914.

6.1 Inspection report

The inspection report shall at least include the following contents.

6.2 Exit-factory inspection

6.2.1

The product shall be inspected by the quality inspection department of the manufacturer. 1000 m is considered a batch (less than 1000 m is also considered a batch, in which the post-aging test of the covering layer is conducted once a quarter), which shall be inspected once. Only after it passes the inspection and the certificate of conformity is issued can it leave the factory.

6.2.2

See Table 9 for exit-factory inspection items.

6.3 Type inspection

6.3.3

Type inspection items are as shown in Table 9.