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Replacing GB/T 20021-2005

Heat resistant conveyor belts of duck construction

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Table of Contents

Foreword.....	3
1 Scope	5
2 Normative references	5
3 Product classification.....	6
4 Technical requirements	7
5 Inspection	8
6 Marks, packaging, storage and transport	10

Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces GB/T 20021-2005 "Heat resistant conveyor belts of duck construction". Compared with GB/T 20021-2005, the main technical changes are as follows:

- modified the scope (see Clause 1 of this Edition, Clause 1 of Edition 2005);
- modified the normative references (see Clause 2 of this Edition, Clause 2 of Edition 2005);
- modified the test temperature of the 4-grade belts (see 3.2 of this Edition, 3.2 of Edition 2005);
- modified the size deviation (see 4.1 of this Edition, 4.1 of Edition 2005);
- deleted the cloth joint (see 4.2 of Edition 2005);
- deleted the requirements for longitudinal full thickness tensile strength and longitudinal reference force elongation after heat aging test of heat-resistant conveyor belts (see 4.3.3 and 4.3.4 of Edition 2005);
- deleted the interlayer adhesion strength and test method for different grades of heat-resistant tapes at respective heat-resistance test temperatures (see 4.3.6 and Annex B of Edition 2005);
- deleted the straightness and groove of heat resistant belt (see 4.3.7 of Edition 2005);
- modified the inspection requirements (see Clause 5 of this Edition, Clause 5 and Clause 6 of Edition 2005);
- added the determination rules for rejected products (see 5.4 of this Edition);
- deleted Annex A (see Annex A of Edition 2005).

This Standard was proposed by China Petroleum and Chemical Industry Federation.

This Standard shall be under the jurisdiction of Subcommittee on Conveyor Belts of National Technical Committee on Pulleys and Belts of Standardization Administration of China (SAC/TC 428/SC 1).

The drafting organizations of this Standard: Qingdao Rubber Six Conveyor Belt Co., Ltd., Zhejiang 3D Rubber Products Co., Ltd., Shenyang Taifeng Tape

Heat resistant conveyor belts of duck construction

1 Scope

This Standard specifies the product classification, technical requirements, inspection, marks, packaging, storage and transport for heat resistant conveyor belts of duck construction used on flat or grooved roller (hereinafter referred to as the heat resistant conveyor belt).

This Standard is application to the heat resistant conveyor belts of duck construction of which the testable temperature are not more than 100°C, 125°C, 150°C and 180°C.

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.

GB/T 3690, *Textile conveyor belts - Full thickness tensile strength, elongation at break and elongation at the reference load - Test method* (GB/T 3690-2017, ISO 283:2015, IDT)

GB/T 4490, *Conveyor belts with textile carcass - Widths and lengths* (GB/T 4490-2009, ISO 251:2003, IDT)

GB/T 5752, *Conveyor belts - Marking* (GB/T 5752-2013, ISO 433:1991, MOD)

GB/T 6759, *Conveyor belts - Adhesion between constitutive elements - Test methods* (GB/T 6759-2013, ISO 252:2007, IDT)

GB/T 32457, *Conveyor belts - Specification for rubber-or plastics-covered conveyor belts of textile construction for general use* (GB/T 32457-2015, ISO 14890:2013, IDT)

GB/T 32331, *Conveyor belts with a textile carcass - Total belt thickness and thickness of constitutive elements - Test methods* (GB/T 32331-2015, ISO 583:2007, IDT)

GB/T 33510, *Conveyor belts with heat-resistant rubber covers - Heat resistance of covers - Requirements and test methods* (GB/T 33510-2017, ISO 4195:2012, IDT)

GB/T 33512, *Textile conveyor belts - Determination of the net length of an endless (spliced) conveyor belt* (GB/T 33512-2017, ISO 16851:2012, IDT)

HG/T 3056, *Conveyor belts - Guidelines for storage and handling* (HG/T 3056-2006, ISO 5285:2004, IDT)

3 Product classification

3.1 Structure

The core of the heat resistant belt is composed of one or more layers of canvas. The canvas shall be calendered and glued, and covered with a cover layer outside the core layer.

3.2 Heat resistance grades

The heat resistant belt are divided into four grades according to test temperature:

- grade 1: test temperature with heat resistance not greater than 100°C, with code of T1;
- grade 2: test temperature with heat resistance not greater than 125°C, with code of T2;
- grade 3: test temperature with heat resistance not greater than 150°C, with code of T3;
- grade 4: test temperature with heat resistance not greater than 180°C, with code of T4.

NOTE The selected test temperature is usually different from the temperature of the material being transported. The test temperature is generally lower than the temperature of the material being transported. This is because it considers:

- possibility of cooling;
- the temperature of the material being conveyed is not the same as the contact temperature of the belt.

The manufacturer shall determine the grade of the heat resistant belt according to the intended use of the heat resistant belt.

3.3 Marks for ordering

Marking example: