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

GB/T 34367-2017

**Light conveyor belts -- Determination of the relaxed elastic
modulus**

轻型输送带 松弛弹性模量的测定

(English Translation)

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Foreword

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

This standard uses the translation method identical with ISO 21181:2013 "Determination of slackening elastic modulus of light conveyor belt" (in English).

The documents of our country that are consistent with the corresponding international documents that are normative references in this standard are as follows.

--- GB/T 16825.1-2008 static uniaxial testing machine test Part 1. Rally and (or) pressure testing machine force measuring system Inspection and calibration of systems (ISO 7500-1:2004, IDT) Conveyor belts - Determination of elastic and permanent modulus elongation and elastic modulus (ISO 9856.:2005);

2003, IDT)

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

--- HG/T 4601.1-2014 light conveyor belt Part 1. Basic performance and application (ISO 21183-1:2005, IDT) this standard proposed by the China Petroleum and Chemical Industry Federation.

This standard by the National Belt and Belt Standardization Technical Committee Conveyor Belt Technical Committee (SAC/TC428/SC1) centralized.

This standard drafting unit. Qingdao Shinkansen Technical Consulting Co., Ltd., Qingdao University of Science and Technology, Qingdao New Material Technology Industrial Park Development Limited the company.

1 Scope

This standard specifies the method of determination of relaxation elastic modulus of light conveyor belts in accordance with ISO 21183-1. This standard does not apply to ISO 9856 in the provisions of the conveyor belt.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 7500-1 Metallic materials - Tests for static uniaxial testing machines - Part 1. Tensile and/or pressure testing machines Force measuring systems
 Metallic materials-Calibration and verification of static uniaxial testing machines-Part 1: Tension/compression testing machines-Calibration and verification of the force-measuring system Determination of ISO 9856 Conveyor Belt Elastic Elongation and Permanent Elongation and Calculation of Elastic Modulus
 (Conveyor belts-Determination of elastic and permanent elongation and calculation of elastic modulus) ISO 18573 conveyor belt test environment and conditioning time
 (Conveyor belts-Test atmospheres and conditioning periods) ISO 21183-1 light conveyor belt Part 1. Basic performance and application (Light conveyor belts-Part 1: Principal characteristics and applications)

3 Terms and definitions

The following terms and definitions apply to this document.

Elastic modulus < Conveyor Technology> Conveyor Belt Force Per Unit.

Note 1: The elastic modulus of the belt is in Newtons per millimeter of bandwidth and is indicated by the symbol M in ISO 9856.

NOTE 2 This term definition goes against the general definition of engineering where the modulus is the force per unit cross-section, indicated by the symbol E (see ISO 527-4, for example).

Elastic modulus < Lightweight Belt Technology> 1% Stops the force expressed in Newtons per unit of bandwidth.

Note 1: This force is indicated by the symbol k. In general, the modulus of elasticity is indicated by the symbol k1%. This value is also called "tensile force per unit of bandwidth elongation 1%" or "K1% value". Expressed in Newtons per millimeter.

Note 2: In EN10002-1:2001, the symbol k indicates the scale factor.

Relaxation elastic modulus relaxed elastic modulus < Lightweight Conveyor Technology>
 Modulus of Elasticity of Lightweight Conveyor Belt after 500 Cycles Between
 Predetermined Stretching Ranges.

Note The k1% value of the new conveyor belt is higher than that of the used conveyor belt, and the conveyor slack occurs during use. Relaxation produces an exponential function.