

ICS 53.040.20

CCS G 42



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

GB/T 33205-2016

**Light conveyor belts -- Determination of the coefficient of
friction**

轻型输送带 摩擦系数的测定

(English Translation)

Issued on: December 13, 2016

Implemented on: July 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

Table of Contents

Foreword

Introduction

1 Scope

2 Normative reference documents

3 Terms and definitions

Foreword

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

This standard uses the translation method equivalent to ISO 21182.:2013 "Light conveyor belt friction coefficient determination" (English version).

And the normative reference in this standard international documents are consistent with the relationship between China's documents are as follows.

GB/T 3505-2009 Geometrical Product Specifications (GPS) Surface Structure Contours Terms, Definitions and Surface Structures Parameters (ISO 4287.:1997, IDT) GB/T 16825.1-2008 Tests for static uniaxial testing machines - Part 1. Tensile force systems for tension and/or pressure testing machines of the inspection and calibration (ISO 7500-1.:2004, IDT)

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

--- HG/T 4601.1-2014 Light conveyor belts Part 1. Basic performance and applications (ISO 21183-1.:2005, IDT) this standard is proposed by the China Petroleum and Chemical Industry Association.

This standard is nationalized by the National Technical Committee on Conveyor Belt with Standardized Technical Committee (SAC/TC428/SC1).

The drafting of this standard unit. Qingdao Shinkansen Technology Consulting Co., Ltd., Qingdao University of Science and Technology.

Introduction

The friction coefficient of the light conveyor must be considered in two different ways depending on the reference material selected. On the one hand is the friction of the next cover Rub, in fact, this is not the key, because this value is quite low. Whether it is steel or

wood test bed, in most cases Under the friction coefficient is in the range of 0.2 to 0.3.

In contrast, due to the practical application of the different coverage of the friction coefficient range is very wide. To achieve its practical application of the function can be the material itself and the surface with the form of improvement, but the determination of the friction coefficient of the procedures are the same. Therefore, the choice of steel plate in this compromise substance. Its main features are the reproducibility of surface treatment and the non-stringency of friction behavior with various belt surfaces.

This standard allows for the comparison of various conveyor belts to obtain reliable conclusions as a reference. When the buyer chooses to apply to a particular purpose of the conveyor belt, this standard can provide some guidance and help.

Tests carried out in accordance with this standard apply only if the dynamic friction coefficient (μ_D) is less than or equal to 1.0 and the static friction coefficient (μ_S) is less than or A conveyor belt equal to 1.5. Higher values indicate that they are mixed with friction, adhesion, deformation, and other factors, especially in the case of rough Rough case is not suitable for this test.

The purpose of the test using a standardized metal test plate is to compare the friction coefficients of the different light conveyor belts. In the actual situation the values obtained are always dependent on the object of friction.

To determine these effects, if necessary, you can choose a different friction object instead of the test plate. This is mentioned in the test report.

Determination of friction coefficient of light conveyor belts

1 Scope

This standard specifies the test method for determining the dynamic and static friction coefficients of the light conveyor belt as described in ISO 21183-1.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

ISO 3574 commodity grade and stamping grade cold-rolled carbon steel sheet
(Cold-reducedcarbonsteelsheetofcommercialand drawingqualities ISO 4287 Product Geometry Technical Specification (GPS) Surface structure. Contour terms Terminology, definitions and surface structure parameters [GeometricalProductSpecifications (GPS) -Surfacetexture. Profilemethod-Terms, definitionsand surfacetextureparameters] ISO 7500-1 Metallic materials - Tests for static uniaxial testing machines - Part 1. Testing of force systems for tensile/pressure testing machines and calibration

(Metallic materials - Verification of static uniaxial testing machines - Part 1. Tension/compression testing machines - Verification and calibration of the force-measuring system) ISO 18573 Conveyor belt test environment and condition adjustment time (Conveyor belts - Test atmospheres and conditioning periods ISO 21183-1 Light conveyor belts Part 1. Basic performance and applications (Light conveyor belts - Part 1. Principal characteristics and applications

3 Terms and definitions

The following terms and definitions apply to this document.

Dynamic friction coefficient dynamic coefficient of friction μ_D the coefficients are expressed by.

Where.

FD - dynamic friction in sliding friction;

FN --- normal force.

Static friction coefficient static coefficient of friction μ_S the coefficients are expressed by.