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

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**Plastics - Friction and wear by sliding - Identification of test
parameters**

塑料 滑动摩擦和磨损 试验参数的确定

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 6601:2002 "Determination of test parameters for sliding friction and wear of plastics".

This document has undergone significant structural adjustments compared to ISO 6601:2002. A table comparing the structural numbering changes between the two documents is provided.

See Appendix A.

The technical differences between this document and ISO 6601:2002, and the reasons therefor, are as follows.

---The normative reference document GB/T 17754-2012 (see Chapter 3) has been added to adapt to my country's technical conditions and align with Chinese standards.

Consistent.

The following editorial changes have been made to this document.

---Added applicable information to this document (see Chapter 1);

---Appendix A (Informative) has been added, providing a comparison table of the structural numbers of this document with those of ISO 6601:2002.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Plastics Standardization (SAC/TC15).

Introduction

Friction is the resistance (sliding friction) generated by the relative motion of different surfaces, which consumes energy, causes wear, and generates heat. Friction is typically...

A barrier, but in some cases, a certain degree of friction is required (e.g., brakes, shoe soles, etc.). This document aims to identify plastics through sliding.

This study investigates methods for measuring material friction and wear, identifies key test parameters, and provides a basis for further developing standards related to test methods and material specifications.

Base.

Determination of test parameters for sliding friction and wear of plastics

1 Scope

This document establishes the parameters related to sliding friction and wear of plastics, as well as the conditions that various test methods must meet to determine these properties.

This document applies to the drafting and related applications of test methods and material specifications for plastic sliding friction and wear.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 17754-2012 Tribology

3 Terms and Definitions

The terms and definitions defined in GB/T 17754-2012 apply to this document.

4 Overview

The sliding friction characteristics of one material against another can be determined by the coefficient of friction, wear rate, frictional resistance, or "limiting pv value" 1).

Use terminology to define.

1) The product of the ultimate specific load that the bearing can withstand under a certain relative sliding linear velocity and the relative sliding linear velocity, or the bearing's maximum load capacity under a certain specific load condition.

The product of the limiting relative sliding linear velocity and the specific load.

These terms relate to various parameters, which can be divided into two categories.

- a) Intrinsic parameters related to the material involved, such as material properties, physicochemical state, surface condition, and surface roughness.
- b) External parameters related to sliding conditions, such as applied load, sliding speed, motion characteristics, contact mode (see Table 1), and environmental conditions.

The factors related to components (temperature, humidity), gap materials (lubricant, wear debris), and sliding conditions (especially the surface temperature of the friction surfaces) are as follows.

The parameters.