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

**GB/T 9867-2008**

Replacing GB/T 9867-1988

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**Rubber, vulcanized or thermoplastic -- Determination of  
abrasion resistance using a rotating cylindrical drum device**

硫化橡胶或热塑性橡胶耐磨性能的测定（旋转辊筒式磨耗机法）

**(English Translation)**

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### Foreword

This standard is equivalent to international standards ISO 4649:2002 "Rubber, vulcanized or thermoplastic - Determination of abrasion resistance using a rotary roller Means "(in English).

This standard is equivalent to translate international standards ISO 4649:2002. Normative references replaced by the national standards with international standards, the references the standard content did not differ from international standards.

This standard is based on ISO 4649:2002 Dui GB/T 9867-1988 were revised for ease of use, this standard does the following series Series of Review.

--- Remove the International Standard ISO foreword.

This standard replaces GB/T 9867-1988 "Determination of abrasion resistance of vulcanized rubber (rotating cylindrical drum abrasion machine method)." this standard is compared to the standard GB/T 9867-1988, the main changes as follows.

--- Increasing the foreword;

--- Increased warnings;

--- Increasing the precision of the content (s edition Chapter 10);

--- Emery cloth by the length of 473mm to 474mm  $\pm$  1mm (see 5.2);

--- Appendix B of the 1st standard rubber formulations minor adjustments, and its cure time has been changed accordingly;

--- Appendix B Added 1 standard rubber hardness requirements.

The Standard Appendix A, Appendix B are normative appendix.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Rubber and rubber products Standardization Technical Committee rubber physical and chemical test methods Technical Committee

(SAC/TC35/SC2) centralized.

This standard was drafted. Northwest Rubber Plastic Research and Design Institute.

## 1 Scope

This standard specifies the determination of wear resistance of vulcanized rubber with a rotating roller device in two ways.

This standard includes the amount of wear volume of the sample at a certain level of emery cloth friction generated by. A method for non-rotating sample, Method B for rotating the sample, the test results with respect to the volume of a certain amount of wear reference gum or wear index to represent.

**Note 1:** Due to the level of Shabu, Shabu production contaminated by the adhesive and the type of test in front, with wear and other factors, will result in attrition loss of the absolute change Oriented, so all tests are relative. Comparison of the results compared to a reference gel both can be expressed as compared with the calibrated relative volume emery cloth mill Consumption, it may be expressed as compared to the reference rubber wear index.

**Note 2:** Determination of attrition loss generally unified by using a rotary sample, which is due in the course of the experiment, the entire friction surface will be in contact with emery cloth samples. but, There are also a considerable number of tests using non-rotating sample.

This standard applies to comparative tests, quality control, based on standardized tests and arbitration purposes, research and development work. Operation can be inferred through this process and the abrasion test results are not closely linked.

## 2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent repair Change a single (not including errata content) or revisions do not apply to this standard. However, the parties are encouraged to study whether according to the agreement You can use the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

Hardness test GB/T 531 rubber hardness pressed into the pocket (GB/T 531-1999, idt ISO 7619. 1986) GB/T 533 Determination of density of vulcanized rubber (GB/T 533-1991, eqv ISO 2781. 1988) GB/T 2941 rubber physical test method for preparing and conditioning General Procedure (GB/T 2941-2006, ISO 23529:2004, IDT) GB/T 6038 Rubber test feed ingredients, mixing and vulcanization - Equipment and procedures (GB/T 6038-2006, ISO 2393.

1994, MOD)

GB/T 6379.2 measurement methods and results of Accuracy (trueness and precision) - Part 2. Determine the standard measurement repeatability and the basic method of reproduction (GB/T 6379.2-2004, ISO 5725-2:1994, IDT) ISO 9298:1995 Rubber compounding ingredients zinc oxide Test Method

### 3 Terms and Definitions

The following terms and definitions apply to this standard.

Resistance due to mechanical action of the material surface wear properties.

**NOTE:** In this standard, with a calibrated reference emery cloth, wear resistance can be expressed relative to a standard reference to the amount of wear rubber relative volume, you can also use with respect to some reference adhesive wear index representation.

Referring gum produced by abrasion effect a polishing cloth fixed mass loss, under the same test conditions specified, the samples subjected to the same effect Volume loss generated in cubic millimeters (mm<sup>3</sup>) meter.

GB/T 9867-2008/ISO 4649:2002