

ICS 83.060

CCS G40



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

GB/T 13936-2014

Replacing GB/T 13936-1992

**Rubber, vulcanized-Method for determination of strength
properties of adhesive to metal in shear by tension loading**

硫化橡胶 与金属粘接拉伸剪切强度测定方法

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Foreword

This standard GB/T 1.1-2009 given rule drafting. This standard replaces GB/T 13936-1992 "vulcanized rubber and metal adhesive tensile shear strength measurement method" and GB/T 13936- The main technical changes compared to 1992 are as follows:

- Increasing the foreword;
- Increased warning;
- Increased Normative references GB/T 17200 (see Chapter 2);
- Increase the tensile testing machine force measurement accuracy requirements (see 4.1.1);
- Updated the recommended grade metal material. use "2A12-T4 aluminum" instead of "LY12-CZ aluminum alloy", with "0Cr18Ni11Ti Stainless steel "instead of" 1Cr18Ni9Ti stainless steel ", with" carbon steel 45 "instead of" carbon 45 "(see 52, 1992. Version 5.2.);
- Added adhesive selection requirements (see section 6.2);
- Sample bonding process requirements for classification is described (see 6.4,1992 Version 6.3);
- Adjust the relative humidity of the test environment, the "60% to 70%" with "50% ± 5%". (See 7.2,1992 Version 7.2). The standard proposed by China Petroleum and Chemical Industry Association. This standard by the national Common test methods for rubber and rubber goods Technical Committee of Standardization Technical Committee (SAC/TC35/SC2) Centralized. This standard is mainly drafted by: Triangle Tire Co., Ltd., Jiangsu Granville true test Machinery Co., Ltd., Beijing Rubber Industry Research Design Institute, Guangzhou Institute of Materials Co., Ltd. The main drafters of this standard. Xuqiu Huan, YAN Fu Jiang, Shen Ke Council Xiejun Fang, Li Jing, Xie Yufang, Yi Jun. This standard replaces the standards previously issued as follows:
- GB/T 13936-1992. Vulcanized rubber and metal adhesive tensile shear strength test

methods Warning. Use of this standard shall have a person experiences regular laboratory work. This standard does not point out all possible security issues, Users have the responsibility to take appropriate safety and health practices and to ensure compliance with the conditions relevant national regulations.

1 Scope

GB/T 13936-2014 is the Chinese national standard on rubber, vulcanized-method for determination of strength properties of adhesive to metal in shear by tension loading, in the field of rubber and plastic industries. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 22 December 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2015. Classification: ICS 83.060, CCS G40. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the method for determination of vulcanized rubber and metal adhesive tensile shear strength. This standard applies to rubber under specified conditions of preparation and two parallel metal sheets bonded shear specimens. Rubber and metal can be through Curing the adhesive, the rubber may be vulcanized using adhesive bonding.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2941 rubber physical test method for preparing and conditioning General Procedure (GB/T 2941-2006, ISO 23529.2004, IDT)

GB/T 17200 Rubber Plastic tensile, compression and bending test machine (constant speed drive) Technical Specification (GB/T 17200-2008,

ISO 5893.2002, IDT) Principle

3 Sample of rubber sandwiched structure with two parallel metal sheets overlap between. Applying a tensile shear strength in the bonding surface of the sample, the measurement sample broke Bad maximum tensile shear strength. Maximum tensile shear adhesive area on the sample unit for vulcanized rubber and metal adhesive tensile shear strength.

4.1 Tensile testing machine

4.1.1 tensile testing machine in line with GB/T 17200 regulations, the force measurement precision level 2.

4.1.2 tensile testing machine equipped with suitable means, the loading force direction and the center line of the sample is consistent. Measuring

4.2 Resolution measurement specimen gage length and width of the bonding surface is not less than 0.05mm.

5 Sample

The shape and dimensions of

5.1 specimens shall conform to Figure 1. Bond length of the sample is (12.5 ± 0.5) mm. The length of the metal sheet (100.0 ± 0.2) mm, a width of (25.0 ± 0.2) mm, a thickness of (2.0 ± 0.1) mm. The length of the rubber sheet was (12.5 ± 0.5) mm, a width (25.0 ± 0.2) mm, a thickness of (2.0 ± 0.1) mm.