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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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Replacing GB/T 14905-2009

# Rubber and Plastics Hoses - Determination of Adhesion between Components

橡胶和塑料软管 各层间粘合强度的测定 (ISO 8033:2016, IDT)

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Standardization Administration of the People's Republic of China.

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#### **Foreword**

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

This Standard serves as a replacement of GB/T 14905-2009 *Rubber and Plastics Hoses - Determination of Adhesion between Components*. In comparison with GB/T 14905-2009, the main technical changes are as follows:

- ---The Chapter "Terms and Definitions" is added (see Chapter 3);
- ---The scope of application of Type 7 test piece is expanded; it is applicable to hoses whose spacing between adjacent coils of the helix is greater than 10 mm, and also suggestions for the preparation of test pieces when the spacing between adjacent coils of the helix is less than 10 mm are provided (see 6.3.8; 5.3.8 of Version 2009);
- ---Figure 1 ~ Figure 8 are modified, so that the representation of these figures can be more accurate, and the misunderstandings of standard users can be reduced (see Figure 1 ~ Figure 8; Figure 1 ~ Figure 8 of Version 2009).

This Standard uses the translation method in the equivalent adoption of ISO 8033:2016 Rubber and Plastics Hoses - Determination of Adhesion between Components.

The Chinese documents that have a consistent correspondence with the international documents in the Normative References of this Standard are as follows:

- ---GB/T 2941-2006 Rubber General Procedures for Preparing and Conditioning Test Pieces for Physical Test Methods (ISO 23529:2004, IDT);
- ---GB/T 12833-2006 Rubber and Plastics Analysis of Multipeak Traces Obtained in Determinations of Tear Strength and Adhesion Strength (ISO 6133:1998, IDT);
- ---GB/T 17200-2008 Technical Specification for Tensile, Compression and Flexural Testing Machines for Rubber and Plastics (constant rate of traverse) (ISO 5893:2002, IDT).

This Standard was proposed by China Petroleum and Chemical Industry Federation.

This Standard shall be under the jurisdiction of National Technical Committee 35 on Rubber & Products of Standardization Administration of China (SAC/TC 35).

The drafting organizations of this Standard: Shengli Oilfield Changlong Rubber & Plastic Co., Ltd.; Shenyang Rubber Research & Design Institute.

The main drafters of this Standard: Mu Xuejie, Zhang Yigui, Wang Shuli.

## Rubber and Plastics Hoses - Determination of Adhesion between Components

### 1 Scope

Adequate adhesion between components of a hose is the basis for the hose to perform well during use. This Standard specifies methods for the determination of the adhesion between lining and reinforcement, between cover and reinforcement, between reinforcement layers, between cover and outer lamination (thin layer of material outside the cover for protection) and between lining and inner lamination (thin layer of material inside the lining to reduce permeation of fluid into the lining). It covers all bore sizes and the following types of hose construction:

---woven textile fabric;
---braided textile fabric;
---knitted textile fabric;
---circular-woven textile fabric;
---textile spiral;
---textile cord;
---wire braid;
---wire spiral;
---hoses containing a supporting helix.

Adequate adhesion between the various components of a hose is essential if it is to perform satisfactorily in service.

#### 2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

ISO 5893 Rubber and Plastics Test Equipment - Tensile, Flexural and Compression Types (constant rate of traverse) - Specification

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