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

GB/T 14837.2-2014

**Rubber and rubber products -- Determination of the composition of
vulcanizates and uncured compounds by thermogravimetry -- Part 2:
Acrylonitrile-butadiene and halobutyl rubber**

橡胶和橡胶制品 热重分析法测定硫化胶和未硫化胶的成分 第2部分：丙烯腈-丁二
烯橡胶和卤化丁基橡胶

(English Translation)

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Table of Contents

Foreword

1 Scope

2 Normative references

Foreword

GB/T 14837 "Rubber and rubber products, thermal gravimetric analysis vulcanized rubber and unvulcanized rubber composition" is divided into three parts.

--- Part 1. butadiene rubber, ethylene - propylene binary and ternary copolymers, isobutylene - isoprene rubber, isoprene rubber, Styrene - butadiene rubber;

--- Part 2. Acrylonitrile - butadiene rubber and halogenated butyl rubber;

--- Part 3. after extraction of hydrocarbon rubber, halogenated rubber, silicone rubber.

This section GB/T Part of 214,837.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with ISO 9924-2:2000 "Rubber and rubber products, thermal gravimetric analysis vulcanized rubber and unvulcanized Plastic components - Part 2. Acrylonitrile - butadiene rubber and halogenated butyl rubber "and its amendments ISO 9924-2:2000/Amd.

1.2012.

Correspondence with consistency in this section of our normative references the following documents.

(1992, MOD ISO 1407) Determination thereof --- GB/T 3516-2006 rubber solvent extraction.

For ease of use, this standard made the following editorial changes.

--- Amendments into the international standard content.

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standardization Technical Committee rubber and rubber products, Common test methods for Club (SAC/TC35/SC2) centralized.

This section is drafted. Double Coin Holdings Ltd., Guizhou Tyre Co., Ltd., China Petroleum & Chemical Corporation North North of Beijing Yanshan Branch Hospital, Guangzhou

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1 Scope

This section 1.1 GB/T 14837 specifies the vulcanized rubber carbonaceous residues and uncured rubber is formed using thermal gravimetric analyzer cleavage the method (see 1.2) the total organic content, carbon content, carbonaceous residue content and ash content of the component. Of which about 300 °C the mass loss of the rubber compound content of volatile substances approximation.

1.2

section applies to the determination of hydrocarbon polymers and rubber compounds vulcanized rubber GB/T 14837.1 covered with polar groups and the following heat After the formation of the rubber solution carbonaceous residues.

- a) acrylonitrile - butadiene rubber (NBRs);
- b) carboxyl acrylonitrile - butadiene rubber (XNBRs);
- c) a hydrogenated acrylonitrile - butadiene rubber (HNBRs);
- d) chlorinated isobutylene - isoprene rubber (CIIRs);
- e) brominated isobutylene - isoprene rubber (BIIRs).

Note 1: If the previously validated this method is applicable to a known compound and vulcanized rubber containing similar components, the scope of application of this method could be extended to the provisions of this section except Analysis of material other than plastic.

Note 2: This section does not apply to polymers containing carbonate or hydrated alumina, mineral fillers, these fillers will decompose at between 25 °C ~ 800 °C.

If you must use, should be appropriately corrected according to the packing characteristics.

Note 3: This section does not apply to vulcanizates and uncured total polymer content determination. according to ISO 1407 can not be completely removed unless the rubber organic ingredients Vulcanized rubber and unvulcanized rubber.

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.

ISO 1407 Rubber - Determination of solvent extract (Rubber-Determinationofsolventextract)
Principle 3

3.1 A weighed sample, according to a preset temperature program in a nitrogen atmosphere is heated from 40 °C to 600 °C, until all the organic matter They are far pyrolysis. If the sample contains nitrile - butadiene copolymer, the polymer will be a small amount of pyrolytic formation of carbonaceous residues, should the determination of carbon Quantity and quality of the residue to give a total organic content amended.

3.2 under a nitrogen atmosphere and the furnace temperature was decreased to 400 °C constant 5min. The nitrogen from the atmosphere of air or oxygen into the furnace temperature was slowly raised to