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

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**Rubber, ethylene-propylene-diene(EPDM) - Evaluation
procedure**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is modified to adopt ISO 4097:2020 "Evaluation method for ethylene-propylene-diene rubber (EPDM)".

The technical differences between this document and ISO 4097:2020 and their reasons are as follows.

--- Increase the reference to GB/T 9881 (see Chapter 3) to facilitate the search for related

terms;

--- Replaced ISO 247.2006 (see 5.3) with the normatively referenced GB/T 4498.1-2013, the consistency between the two documents

The degree is modified for the practical application in our country;

--- Increase the reference to GB/T 4498.2-2017 (see 5.3) for practical application in my country;

--- Increased the information of national standard sample operating oil (see 6.1) to meet the needs of users;

--- Deleted the relevant content of "double cone blender and Waring agitator", because it is not suitable for mixing a small amount of compounding agent (see

6.3.2.2 of ISO 4097.2020);

--- Changed the method of evaluating vulcanization characteristics with a rotorless vulcanizer (see 7.2) to meet the needs of users;

--- Changed the symbol of the vulcanization characteristic parameters measured by the rotorless vulcanizer (see 7.2, Chapter 10).

Please note that some contents of this document may refer to patents. The issuing authority of this document does not assume the right to identify patents.

1 Scope

This document describes physical and chemical test methods for ethylene-propylene-diene rubber (EPDM) raw rubber to evaluate EPDM (including oil-extended

Standard materials, standard test recipes, equipment and operating procedures for vulcanization characteristics of rubber).

This document applies to the evaluation of EPDM.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

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

GB/T 528 Determination of tensile stress-strain properties of vulcanized rubber or thermoplastic rubber (GB/T 528-2009, ISO 37.2005,

IDT)

GB/T 1232.1 Determination of unvulcanized rubber with a disc shear viscometer - Part 1.Determination of Mooney viscosity

(GB/T 1232.1-2016, ISO 289-1.2014, IDT)

GB/T 2941 General procedure for specimen preparation and adjustment of rubber physical test methods (GB/T 2941-2006, ISO 23529.2004,

IDT)

GB/T 4498.1-2013 Determination of Rubber Ash Content Part 1.Muffle Furnace Method (ISO 247.2006, MOD)

GB/T 4498.2-2017 Determination of Rubber Ash Content Part 2.Thermogravimetric Analysis

GB/T 6038 Rubber test compound batching, mixing and vulcanization equipment and operating procedures (GB/T 6038-2006, ISO 2393.

1994, MOD)

GB/T 9881 Rubber Terminology

GB/T 15340 Sampling of natural and synthetic raw rubber and its sample preparation method (GB/T 15340-2008, ISO 1795.2000, IDT)

GB/T 24131.1 Determination of volatile content of raw rubber - Part 1.Hot roll method and oven method (GB/T 24131.1-2018,

ISO 248-1.2011, MOD)

GB/T 24131.2 Determination of volatile content of raw rubber - Part 2.Heating loss of automatic analyzer with infrared drying unit

Heavy method (GB/T 24131.2-2017, ISO 248-2.2012, MOD)

ISO 6502-2 Measurement of vulcanization properties of rubber using a vulcanometer Part 2.Disk oscillation vulcanometer method (Rubber-Meas-

ISO 6502-3 Measurement of vulcanization properties of rubber using a vulcanometer Part 2.Rotorless vulcanometer method (Rubber-