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

GB/T 23662-2022

Replacing GB/T 23662-2009

Rubber seals for use between concrete paving sections

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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 replaces GB/T 23662-2009 "Rubber seals for concrete road expansion joints". Compared with GB/T 23662-2009,

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Added materials with a hardness grade of 40 (see Table 1);
- b) The test temperature and time for accelerated aging in hot air have been changed (see Table 1 No. 5, Table 1 of the.2009 edition);
- c) The requirements and test methods for "compressive stress relaxation" have been added (see Table 1, 5.3.6);
- d) The requirements and test methods for "overstretching protection" have been added (see Table 1, 5.3.11);
- e) The requirements and test methods for "function under cold climate conditions" have been added (see Table 1, 5.3.12);
- f) The chapter "Quality Assurance" is changed to "Inspection Rules" (see Chapter 6, Chapter 6 of the.2009 edition);
- g) Functional tests in cold climates have been added (see Appendix C).

This document is modified to adopt ISO 4635.2011 "Specification for Prefabricated Seals for Expansion Joints of Vulcanized Rubber Highway Concrete Sections".

Compared with ISO 4635.2011, this document has more structural adjustments. Please refer to the attachment for the comparison list of structural number changes of the two documents

Record A.

The technical differences between this document and ISO 4635.2011 and their reasons are as follows.

- a) Added a reference to GB/T 9881, and deleted the term "International Rubber Hardness" (see Chapter 3), because GB/T 9881 has defined righteous;
- b) The types of synthetic rubber materials used in the manufacture of seals are added (see 4.1.3) to facilitate the application of material selection;
- c) Replace ISO 3302-1.1996 (see 4.2, 5.2) with GB/T 3672.1-2002 to adapt to the technical conditions of our country;
- d) Replace ISO 23529 (5.1.1.1) with GB/T 2941 to adapt to the technical conditions of our country;
- e) Replace ISO 37 (see 5.1.3) with GB/T 528-2009 to adapt to the technical conditions of our country;
- f) Replace ISO 188 (see 5.1.5) with GB/T 3512 to adapt to the technical conditions of our country;
- g) Replace ISO 3387 (see 5.1.8) with GB/T 12832 to adapt to the technical conditions of our country;
- h) Replace ISO 1431-1 (see 5.1.9) with GB/T 7762-2014 to adapt to the technical conditions of our country;
- i) Replace ISO 1817 (see 5.1.10) with GB/T 1690 to adapt to the technical conditions of our country;
- j) The chapter "Inspection Rules" (see Chapter 6) has been added to adapt to the technical conditions of our country;
- k) The requirements for the specimens of the "recovery rate at low temperature and high temperature" test are added (see B.3) to improve the operability of the test;
- l) Increase the value of the test result of "recovery rate at low temperature and high temperature" (see B.5) to ensure the rigor of the test results.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the requirements, inspection rules, marking and storage of rubber seals for expansion joints of road concrete road sections, and describes road concrete

Test method for rubber seals for expansion joints in concrete road sections.

This document applies to rubber seals for expansion joints in concrete road sections (hereinafter referred to as seals).

NOTE. This document does not cover the design of seals, but gives general requirements for finished seals.

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 is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

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

GB/T 1685.2-2019 Determination of compressive stress relaxation of vulcanized rubber or thermoplastic rubber - Part 2. Test at cyclic temperature

Inspection (ISO 3384-2.2012, IDT)

GB/T 1690 Test method for liquid resistance of vulcanized rubber or thermoplastic rubber (GB/T 1690-2010, ISO 1817.2005,

MOD)

GB/T 2941 General procedures for the preparation and adjustment of test pieces for rubber physical test methods (GB/T 2941-2006, ISO 23529.

2004, IDT)

GB/T 3512 Hot air accelerated aging and heat resistance test of vulcanized rubber or thermoplastic rubber (GB/T 3512-2014, ISO 188,

IDT)

GB/T 3672.1-2002 Tolerances of Rubber Products Part 1. Dimensional Tolerances (ISO 3302-1.1996, IDT)

GB/T 6031-2017 Determination of hardness of vulcanized rubber or thermoplastic rubber (10IRHD~100IRHD) (ISO 48.2010,

IDT)

GB/T 7759.1-2015 Determination of compression set of vulcanized rubber or thermoplastic rubber Part 1.At room temperature and high temperature

Conditions (ISO 815-1.2008, IDT)

GB/T 7759.2-2014 Determination of compression set of vulcanized rubber or thermoplastic rubber - Part 2.At low temperature

(ISO 815-2.2008, IDT)

GB/T 7762-2014 Static tensile test for ozone cracking resistance of vulcanized rubber or thermoplastic rubber

GB/T 9881 Rubber Terminology

GB/T 12832 Determination of rubber crystallization effect Hardness measurement method (GB/T 12832-2008, ISO 3387.1994, IDT)

GB/T 20739 Rubber Products Storage Guidelines (GB/T 20739-2006, ISO 2230.2002, IDT)

GB/T 25270 Technical requirements for tensile, flexion and compression test equipment (constant speed moving type) of rubber and plastics (GB/T 25270-

2010, ISO 5893.2002, IDT)

ISO 2285 Determination of tensile set at constant elongation and tensile set at constant load of vulcanized or thermoplastic rubber