

ICS 45.060.01
CCS S 33



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

GB/T 47360-2026

**Rolling stock suspension anti-vibration mechanism - Rubber
parts**

机车车辆悬挂减振装置 橡胶弹性元件

(English Translation)

Issued on: April 30, 2026

Implemented on: November 1, 2026

Issued by: State Administration for Market Regulation

Table of Contents

Preface	
1 Scope	
2 Normative References	
3 Terms and Definitions	
4 Symbols	
5 Coordinate System Definition	
6 Application Conditions	
7 Technical Requirements	
8 Test Methods	
9 Inspection Rule	
10 Marking, Packaging, Transport and Storage	23.
Appendix A (Informative) Structure Numbering Comparison Table	
Appendix B (Informative) Summary of Technical Differences and Their Reasons	
Appendix C (Informative) Common Types of Rubber Elastic Elements	
Appendix D (Normative) Product Characteristic Tolerances and Judgment Criteria	
Appendix E (Normative) Design of Test Fixtures and Analysis of Errors in Stiffness Measurement System	
Appendix F (Informative) Recommended Scheme for Fatigue Testing of Rubber Elastic Elements	
Appendix G (Informative) Recommended loading speed.	
Appendix H (Informative) Optional Test Items for Rubber Elastic Elements	

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 22749-1:2021 "Railway applications - Suspension components - Part 1: Properties and tests of rubber elastic elements".

method".

Compared with ISO 22749-1:2021, this document has undergone many structural adjustments. A comparison of the structural numbering changes between the two

documents is provided below.

See Appendix A for the table.

This document differs significantly from ISO 22749-1:2021. The relevant clauses are indicated in the margins using vertical markers.

The straight lines (|) are marked. A summary of these technical differences and their reasons can be found in Appendix B.

The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Rubber Elastic Elements for Locomotive and Rolling Stock Suspension Damping Devices";

---Change the phase angle β to δ .

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Railway Administration.

1 Scope

This document specifies the symbols, coordinate system definitions, application conditions, technical requirements, and testing methods for rubber elastic elements in locomotive and rolling stock suspension systems.

Laws, inspection rules, and marking, packaging, transportation and storage.

This document applies to the suspension systems and equipment of railway locomotives, passenger cars, freight cars, EMUs, and various self-propelled special equipment.

Rubber elastic elements used in installation systems, connections, and limiting parts to provide vibration damping, cushioning, flexible connections, and limiting functions. Urban rail vehicles.

Refer to the usage guidelines for vehicle-mounted rubber elastic elements.

This document does not apply to locomotive and rolling stock windshields, air springs, sealing rubber products, coupler buffer rubber parts, hoses, and conveyor belts.

Note: Common types of rubber elastic elements are listed in Appendix C.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

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

This document.

GB/T 528 Determination of tensile stress-strain properties of vulcanized rubber or thermoplastic rubber
GB/T 531.1 Test methods for indentation hardness of vulcanized rubber or thermoplastic rubber-Part 1: Shore hardness tester method (Shore hardness)
GB/T 533 Determination of density of vulcanized rubber or thermoplastic rubber (GB/T 533-2008, ISO 2781:2007, IDT)
GB/T 1184-1996 Geometric Tolerances - Tolerances without Specified Values
GB/T 1682 Determination of Low-Temperature Brittleness of Vulcanized Rubber - Single Sample Method
GB/T 1690 Test methods for resistance to liquids of vulcanized or thermoplastic rubber (GB/T 1690-2010, ISO 1817:2005) MOD
GB/T 1692 Determination of Insulation Resistivity of Vulcanized Rubber
GB/T 1804-2000 General tolerances - Tolerances for linear and angular dimensions without specified tolerances
GB/T 2941 General procedures for specimen preparation and conditioning in physical testing of rubber (GB/T 2941-2025, ISO 23529.

2016, IDT)

GB/T 3512 Accelerated aging or heat resistance test of vulcanized rubber or thermoplastic rubber in hot air (GB/T 3512-2014, ISO 188.

2011, IDT)

GB/T 3672.1-2002 Tolerances of rubber products - Part 1: Dimensional tolerances
GB/T 3672.2-2002 Tolerances of rubber products - Part 2: Geometric tolerances
GB/T 7762 Static tensile test for ozone cracking resistance of vulcanized or thermoplastic rubber (GB/T 7762-2014, ISO 1431-1.

2004, NEQ)

GB/T 9867-2008 Determination of abrasion resistance of vulcanized or thermoplastic rubber (rotary roller abrasion test) (ISO 4649.

2002, IDT)

GB/T 10125 Corrosion test in artificial atmosphere - Salt spray test (GB/T 10125-2021, ISO 9227:2017, MOD)
GB/T 16585 Artificial Weathering (Fluorescent UV Lamp) Test Method for Vulcanized Rubber
HG/T 3090 General Requirements for the Appearance Quality of Molded and Extruded Rubber Products