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

GB/T 11182-2025

Replacing GB/T 11182-2017

Steel wire for rubber hose reinforcement

橡胶软管增强用钢丝

(English Translation)

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work - Part 1: Structure and drafting rules for standardization documents".

This document replaces GB/T 11182-2017 "Steel wire for rubber hose reinforcement". Compared with GB/T 11182-2017, in addition to the structural adjustment and the editorial changes, the main technical changes are as follows.

--- Changed the nominal diameter range from 0.20mm~2.40mm to 0.15mm~2.40mm (see Chapter 7; Chapter 8 of the 2017 edition);

--- Deleted the content of flat steel wire, its marking method, technical requirements, etc. (see 8.3.3 of the 2017 edition);

--- Added extra high strength grade (UT); steel wire is classified into five levels according to tensile strength. low strength grade (LT), ordinary strength grade (NT), high strength grade (HT), super high strength grade (ST), extra high strength grade (UT) (see Chapter 4);

--- Added the performance index of total elongation at break in the mechanical properties of

steel wire (see Chapter 7);

--- Changed the mass fraction of copper in the brass layer of the steel wire from $(68 \pm 4)\%$ to $(67.5 \pm 4)\%$ (see Chapter 7; Chapter 8 of the 2017 edition);

--- Changed the requirements for wire ring diameter and pitch index (see Chapter 7; Chapter 8 of the 2017 edition);

This document is modified to adopt ISO 23717:2022 "Steel wire and products made from it - Steel wire for reinforcement of rubber hoses".

Compared with ISO 23717:2022, this document has many structural adjustments. The table below shows the structural number changes between the two documents. See Appendix A.

This document has many technical differences compared to ISO 23717:2022. A list of these technical differences and their causes is given in Appendix B.

This document has been edited compared to ISO 23717:2022.

--- Modified the standard name, ISO 23717:2022 is named "Steel wire and its products for rubber hose reinforcement" Use the name of the previous edition GB/T 11182-2017 "Steel wire for rubber hose reinforcement".

1 Scope

This document specifies the terms and definitions, classification, marking method, ordering content, technical requirements, test methods, Inspection rules, packaging, marking, transportation, storage and quality certificates.

This document applies to electroplated brass steel wire (hereinafter referred to as "steel wire") for rubber hose reinforcement.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 228.1 Tensile tests on metallic materials - Part 1: Test methods at room temperature (GB/T 228.1-2021, ISO 6892-1:2019, MOD)

GB/T 238 Metallic materials, wire rod, repeated bending test method (GB/T 238-2013, ISO 7801:1984, MOD)

GB/T 239.1 Metallic materials wire Part 1: Unidirectional torsion test method (GB/T

239.1-2023, ISO 7800:2012, IDT)

GB/T 341 Steel wire classification and terminology

GB/T 2103 General provisions for acceptance, packaging, marking and quality certification of steel wire

GB/T 24242.2 Non-alloy steel wire rod for wire making - Part 2: Wire rod for general purposes (GB/T 24242.2-2020, ISO 16120-2:2017, MOD)

GB/T 24242.4 Non-alloy steel wire rod for wire making - Part 4: Wire rod for special purposes (GB/T 24242.4-2020, ISO 16120-4:2017, MOD)

GB/T 33159 Test methods for steel cord

YB/T 081 Rounding off of numerical values in metallurgical technical standards and determination of test values

3 Terms and Definitions

The terms and definitions defined in GB/T 341 and the following apply to this document.

3.1 Actual diameter

The arithmetic mean of two diameter measurements taken in perpendicular directions on any cross section.

3.2 Out-of-roundness

The arithmetic difference between the maximum and minimum diameters measured on a cross section perpendicular to the wire axis.

3.3 Ring diameter cast

The outer diameter of a coil of steel wire formed naturally on a smooth surface under no tension.