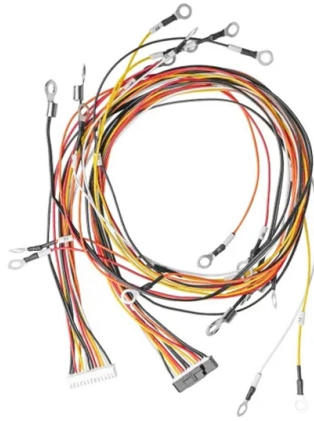


Standard for Steel Wire for Optical Cable Reinforcement



Article Overview

The standard for steel wire used as tension members in optical fiber cables is GB/T 24202-2021, specifying technical requirements, classifications, and testing methods for galvanized and phosphated carbon steel wires.

Scope and Application

GB/T 24202-2021 governs carbon steel wires used as tension members in optical fiber cables, including both galvanized and phosphated round wires. It defines terms, classification, labeling, dimensions, allowable deviations, technical requirements, inspection methods, packaging, marking, transportation, storage, warranty, and quality certification. While primarily for optical fiber cables, the standard can also serve as a reference for other cable tension applications .

Classification and Strength Grades

Steel wires are classified by nominal tensile strength into seven grades: 1370, 1570, 1770, 1960, 2160, 2350, and 2550 MPa. Surface treatments include phosphating or zinc coating, with galvanized wires further divided into three levels: AB, C, and E, based on coating weight . Marking examples:

- Phosphated wire, 1.40 mm diameter, 1960 MPa: Phosphated steel wire for optical fiber cable 1.40-1960-GB/T 24202-2021
- Galvanized wire, 1.60 mm diameter, 1570 MPa, Grade E zinc: Galvanized steel wir...

Article Content

Sep 12, 2025

YD/T 4866-2024: (Copper-coated steel wire for (PDF English)

This standard applies to the design, development, production, and inspection of copper-coated steel wires for optical

Jan 08, 2026

Standard Specification for Stranded Carbon Steel Wire Ropes for

Standard Specification for Stranded Carbon Steel Wire Ropes for General Purposes¹
This standard is issued under the fixed

Apr 05, 2026

New ASTM Steel Wire and Welded Wire Reinforcement Standard Is

The new standard combines information previously contained in the following four existing A01.05 standards:

Jan 01, 2026

A82 Standard Specification for Steel Wire, Plain, for Concrete ...

1.1 This specification covers cold-drawn steel wire, as-drawn or galvanized, to be used as such, or in fabricated form,

Feb 23, 2026

Standard Specification for Steel Wire and Welded Wire Reinforcement ...

1.1 This specification covers steel wire and welded wire reinforcement produced from hot-rolled rod to be used for the

Mar 15, 2026

Standard Specification for Steel Wire and Welded Wire Reinforcement ...

Abstract This specification covers the material, dimensional and mechanical property requirements for plain and

Jun 10, 2026

Standard Specification for Carbon-Steel Wire and Welded Wire ...

Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete¹ This standard is issued under the fixed

Dec 01, 2025

ACSR – Aluminum Conductor Steel Reinforced

APPLICATION: ACSR – Aluminum Conductor Steel Reinforced is used as bare overhead transmission cable and as primary and

Sep 30, 2025

How Steel Wire Strand Enhances Optical Cable Durability

The integration of steel wire strand not only protects against physical damage but also enhances the overall performance of optical

Nov 30, 2025

Manual of Standard Practice 2021

The manufacture of welded wire reinforcement is governed by the ASTM A1064 Standard Specification for Carbon-Steel Wire and

Oct 27, 2025

Research on Reinforcement Method of Optical Cable Assembly

In view of the bending radius of the optical cable assembly and the insufficient radiation resistance, a reinforcement scheme is

Jul 17, 2026

Messenger Wire/Strand Manufacturer & Supplier

These standards outline the ideal characteristics and testing methods for various materials, including steel messenger wire. Our

Nov 06, 2025

Standard Specification for Carbon-Steel Wire and Welded Wire ...

Abstract This specification covers the material, dimensional and mechanical property requirements for plain and

Nov 18, 2025

ISO 23717:2022

This document specifies the composition, dimensions and mechanical properties of steel wire with a high mass fraction of carbon,

Jul 01, 2026

GOST Standards for steel wire. Marochnik

Steel wire for mechanical springs cold-drawn carbon steel. GOST Standards for steel wire. Marochnik.

Dec 03, 2025

ISO/TC 17/SC 17

The development and maintenance of product standards and related standards for steel wire rod, wire and wire products, except

Oct 19, 2025

Standards Updates for Optical Fiber: What You Need to Know

Standards Updates for Optical Fiber: What You Need to Know Industry standards for optical fiber cables, components,

Apr 08, 2026

Steel Standards

ASTM's steel standards are instrumental in classifying, evaluating, and specifying the material, chemical, mechanical, and

Jan 19, 2026

SWA Fiber Optic Cable: Steel Wire Armoured Fiber Cable

Discover SWA Fiber Optic Cable features, benefits, and applications. ETK is a global supplier of steel wire armoured

Jun 19, 2026

1138-2009

This standard covers the performance, test requirements, procedures, and acceptance criteria for a transmission line

Aug 29, 2025

ISO/TC 17/SC 17

Standardization of grades and properties of wire rod (excluded are those for special purposes, e. g. qualities standardized by ISO/TC

Oct 24, 2025

Optical Cable Metal And Non-metal Reinforcement Selection And ...

1. Steel wire In order to ensure that the cable can withstand enough axial tension when laying and applying, the cable must contain

Jul 31, 2025

Standard Specification for Carbon-Steel Wire and Welded Wire ...

1.1 This specification covers carbon-steel wire and welded wire reinforcement produced from hot-rolled rod to be used

Jun 23, 2026

A497 Standard Specification for Steel Welded Wire Reinforcement ...

Therefore, the term "welded wire fabric" has been replaced with the term "welded wire reinforcement" in this

Oct 08, 2025

Handbook Optical fibres, cables and systems

ITU-T has been active in the standardization of optical communications technology and the techniques for its optimal application

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