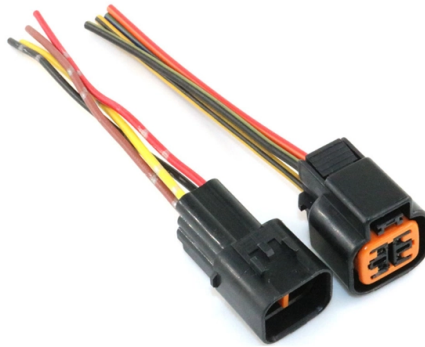


Parameters of Phosphated Steel Wire for Optical Cable



AI Overview

Phosphated steel wire for optical cables combines high tensile strength, corrosion resistance, and precise surface treatment to serve as a durable support element in optical cable systems.

Mechanical and Physical Properties Phosphated steel wires used in optical cables are designed to provide high mechanical strength and dimensional stability. Typical parameters include:

- Diameter range:** 0.35–3.0 mm, with wires above 1.0 mm cold drawn and wires below 1.0 mm heat treated for optimal performance.
- Tensile strength grades:** 1570, 1670, 1770, 1870, 1960, 2160 MPa, ensuring the wire can withstand installation tension and environmental stress.
- Elastic modulus:** Greater than 186 GPa, providing stiffness and resistance to elongation under load.
- Material:** High-carbon steel, commonly grades #60, #72A, #80, #82A.
- Dimensional accuracy and straightness:** High precision is required to maintain cable integrity and prevent signal disruption.
- Surface Treatment:** Phosphating

Phosphating is a chemical conversion coating applied to steel wire to enhance corrosion resistance, lubrication, and adhesion for subsequent coatings:

- Manganese phosphating:** Forms a dense crystalline layer, ideal for harsh environments and underground or long-haul telecom cables.
- Zinc phosphating:** Provides a uniform, slightly textured surface suitable for polymer or paint adhesion, commonly used in general-purpose optical cables.
- Thin amorphous phosphate layers:** Serve as pretreatment for further coatings, mainly for indoor or secondary protection systems.
- Zinc-nickel phosphating with organic sealants:** Recommended for fluctuating temperature and humidity conditions to maximize corrosion resistance and coating adhesion.

The phosphating layer also prevents chemical reactions with cable grease, reduces friction between wires, and avoids hydrogen-induced damage, ensuring long-term reliability.

Application and Performance

Article Content

Phosphated Steel Wire for Optical Fiber Cable with High Strength 1.2

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

High Carbon Phosphated Steel Wire for Optical Cable Material

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

Phosphated Steel Wire for Optical Cable =Usage 0.50mm 0.60mm

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

Phosphated Steel Wire for Optical Cable

Wires with diameter above 1.0 mm are cold drawn and then phosphated, wires below 1.0 mm require heat treatment. -The phosphated surface provides excellent lubrication and rust resistance, serving

Phosphated Steel Wire for Durable Industrial Optical Cable Springs

Our versatile product range includes smooth and galvanized steel wires, elevator wire ropes, carbon spring steel wires, rope steel wires, flexible shaft steel wires, optical cable steel wires, ball bearing

What is Phosphating Steel Wire and How Does It Improve Corrosion

Phosphate coatings are widely utilized to enhance the corrosion resistance of steel wire. These coatings are primarily classified into three types: zinc, manganese, and iron phosphates. Each

(Geron factory) High Carbon Phosphated Steel Wire for Optical Cable

(Geron factory) High Carbon Phosphated Steel Wire for Optical Cable, Find Details and Price about Steel Wire Steel Wire for Hardware Tools from (Geron factory) High Carbon Phosphated Steel Wire

Production technology of phosphating steel wire for strengthening ...

The biggest characteristic of the cable wire drawing process is slow speed, low output and low strength. Generally, the cable wire has I-shaped wheel take-up of the cable wire, because the manufacturing

Phosphated Steel Wire for Optical Fiber Cable High Tension/High ...

Steel wire is commonly used in outdoor environments in optical cables, such as overhead, pipeline, direct burial and underwater, where its advantages include high strength and strong resistance to

Phosphated Steel Wire-Messenger Wire for Fiber Optical Cable

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

2.0*3.0 Phosphated Steel Wire FTTH Optical Fiber Gjxh

Flat Wire Allowed Lateral Pressure >1000 (N/100mm) Allowed Tensile Strength 100N<1000N Core Single Core Certification ISO9001 Brand OEM Sheath

Phosphated Steel Wire for Optical Cable Strengthening

More importantly, it forms the phosphating film on the surface of steel wire, which can protect the steel wire from rusting. The tech details for these 2 applications are kind of different. The strength and

High Carbon Durable Phosphated Steel Wire for Optical Cable

Phosphated Technique Hot Treatment Application Rope, Packaging, Netting, Manufacturing, Fencing, Construction Alloy or Not Non-alloy Standard BS, JIS, GB, ASTM, DIN, AISI Product Name

Phosphated Steel Wire 0.5-1.8mm for Durable Industrial Uses Optical Cable

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

China Phosphatized Steel Wire manufacturers and

The phosphatized steel wire for optical fiber cable is made of high-quality carbon steel wire rods through a series of processes such as rough drawing, heat

Phosphated Steel Wire for Optical Cable Communication

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

2026 Best Phosphating Steel Wire Methods and Applications?

Phosphating steel wire is a critical process that enhances the performance and longevity of the wire through various phosphating technologies. These processes create a protective layer on

High Tension Phosphated Steel Wire for Optical Fiber Cable 0.4mm

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

2026 Best Phosphating Steel Wire Methods and Applications?

Overview of Phosphating Processes for Steel Wire Phosphating processes for steel wire play a crucial role in enhancing corrosion resistance. These methods create a phosphate coating that

45# 50# 60# 70# Phosphated Industrial Optical Steel Wire for Reliable ...

45# 50# 60# 70# Phosphated Industrial Optical Steel Wire for Reliable Optical Spring Applications, Find Details and Price about Optical Steel Wire and Cable Steel Wire from Jiangsu Taibo Steel Wire

GB/T24202/1000-2000 MPa Phosphated Steel Wire for Optical Cable

The steel wire in the optical cable provides important support and protection for the cable through its unique physical and mechanical properties, ensuring the stable transmission of communication

CN114308867A

The invention relates to the field of phosphated steel wires, in particular to an external processing method of a phosphated steel wire for reinforcing an optical cable.

2.0*3.0 Phosphated Steel Wire Bow-Type FTTH Optical Fiber Gjxh Drop Cable

Type 2: STEEL WIRES as strength member GJXH Model GJXH FTTH Drop Cable Strength Member Parallel Steel Wires Fiber Counts 1/2/4/6 cores Fiber Type Bending Insensitive Fiber G657A1,

The Science Behind Phosphating Steel Wire For Optical Cable:

Different phosphating techniques are employed based on specific application requirements such as exposure to moisture, chemical environments, or the need for adhesion to polymer jackets and

Phosphated steel wire for optical cables

Phosphated steel wire for optical cables is a type of steel wire coated with a phosphating layer on the surface, which has good corrosion resistance while maintaining the strength of the steel wire itself.

Phosphated Steel Wire for Optical Cable Construction

Phosphated Technique Hot Treatment Application Rope, Packaging, Netting, Manufacturing, Fencing, Construction Alloy or Not Non-alloy Standard BS, JIS, GB, ASTM, DIN, AISI Product Name

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.shangases.co.za>

Email: ekomedsolar@gmail.com

Phone: +86 13816583346

Address: No. 26 Heshun Middle Road, Economic Development Zone, Hai'an City, Jiangsu Province, China

This document is for informational purposes only. Specifications subject to change without notice.

