

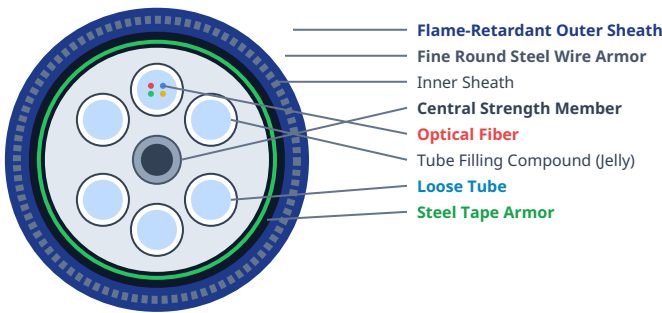
Mine-Use Steel-Wire Armored Optical Cable (MGTS33)

Flame-Retardant & Rodent-Proof Steel Wire Armored Mining Cable Technical Datasheet

Product Description

The structure of the **MGTS33 mine-use explosion-proof optical cable** involves encasing 250 μm optical fibers into loose tubes made of high-modulus material, which are filled with a waterproof compound. The center of the cable core features a metallic central strength member (a layer of Polyethylene / PE is extruded over the central metallic strength member for certain fiber counts). The loose tubes and filler rods are stranded around the central strength member into a compact and circular cable core, with interstitial gaps filled with water-blocking compound. After wrapping with steel tape armor and an inner sheath, a layer of fine round steel wire armor is wrapped around, followed by the extrusion of a blue flame-retardant outer sheath. The fine round steel wire armor layer effectively prevents damage from rodent bites.

Cable Cross-Section & Structural Diagram



Product Features

Superior Mechanical & Thermal Performance

Delivers outstanding mechanical strength against severe physical stress and maintains excellent stability across broad temperature ranges.

Critical Fiber Protection Jelly

Loose tubes are filled with specialized waterproofing compound to offer essential, long-term protection for the optical fibers.

CMR Sheath Flame Retardancy

High-grade CMR outer sheath provides superior flame-retardant performance for safe underground mining operations.

High Modulus & Corrosion-Resistant Central Member

Phosphatized steel wire central strength member exhibits high elastic modulus and superior corrosion resistance.

Fine Steel Wire Wrapped Armoring

Wrapped fine round steel wire armor ensures robust mechanical crush, tensile, explosion-proof, and rodent-proof protection.

25+ Years Long Service Life

Durable structural engineering and high-grade raw materials ensure a service life of over 25 years in harsh mining environments.

Technical Specifications

Cable Model	Fiber Count	Cable Diameter (mm)	Allowable Tensile Force (N)		Allowable Crush Resistance (N/100mm)		Bending Radius (mm)	
			Long-Term	Short-Term	Long-Term	Short-Term	Static	Dynamic
MGTS33-2~60Xn	2~60	13.8	4000	10000	1000	3000	10D	20D
MGTS33-62~84Xn	62~84	15.1	4000	10000	1000	3000	10D	20D
MGTS33-86~108Xn	86~108	16.6	4000	10000	1000	3000	10D	20D
MGTS33-110~132Xn	110~132	17.9	4000	10000	1000	3000	1000	20D
MGTS33-134~216Xn	134~216	18.6	4000	10000	1000	3000	10D	20D
MGTS33-218~288Xn	218~288	20.4	4000	10000	1000	3000	10D	20D

Note: The above data is for reference only. Cable storage and operating temperature range: -40°C to +70°C.

Product Standards: Complies with Guangdong JuXian Fiber Communication Co., Ltd. MGTS33 optical cable standard **MT/T 386-2011** and **Q/TY1009-2020**.