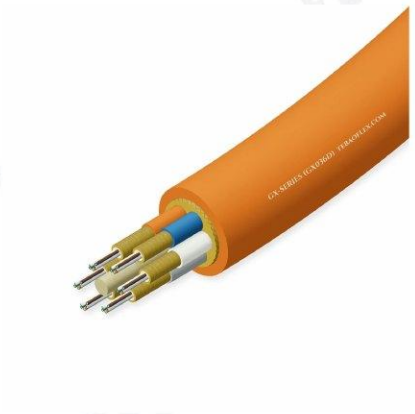
MSHA tight-buffered subgrouping mining optical cable

GX-SERIES (GX036D)

MSHA Subgrouping Mining Optical Cable

MSHA 30 CFR 7.408 / MIL-PRF-85045 · 12–72F · Subgrouping aramid mining optical cable



MSHA 30 CFR 7.408 | 6×6F 900 µm Sub-Units | All-Dielectric Aramid

Application

GX-SERIES (GX036D) MSHA-approved all-dielectric tight-buffered subgrouping optical cable for underground mining and industrial backbones, with 6 aramid-reinforced 6-fibre sub-units (36F) around a central FRP rod and an interlocked MSHA jacket.

Typical uses: Underground Coal & Hard-Rock Mining, Open-Cast Excavators, Draglines & Shovels, Vertical Mine Shafts, Hoists & Boreholes, Tunneling, Mineral Processing & Slurry Plants

Construction





Cross-section, not to scale

1. Central Dielectric Member
2. Sub-Cable Units (6×6F Subgrouping)
3. Peripheral Aramid Reinforcement
4. Interlocked Outer Jacket (D-Jacket)

Technical data

Typical values

Rated voltage / transmission duty	Optical (MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045)
Primary dielectric / buffering	Sub-Cable Units (6×6F Subgrouping) — Six independent sub-cables with 900 µm tight-buffered fibres & aramid yarn
Short-circuit / peak thermal rating	Verified thermal stability per MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045
Outer protection / armouring	Interlocked Outer Jacket (D-Jacket) — Pressure-extruded MSHA-approved jacket interlocked with sub-unit interstices
Crush, impact & abrasion duty	Heavy-duty mining rock-cut, impact and tensile protection per MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045
Mine water, oil & chemical resistance	Resistant to acidic mine water, hydraulic oils and abrasion per MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045
Standards	MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045

Core / conductor construction	Central Dielectric Member — Flexible central rod stabilizing helically stranded sub-cables
Continuous operating temperature	-40 to +85 °C (mining & industrial service)
Storage & transport temperature	−40…+80 °C on export wooden/steel drum
Minimum bending radius	10 × OD
Flame retardancy & mine fire safety	Self-extinguishing / flame-retardant mining jacket per MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Tensile rating kN ≈	Min. bend R mm
GX-SERIES (GX036D) Construction Schedule (-40 to +85 °C) 3 sizes						
☐ **GX-SERIES (GX024D) 24F (4×6F) Subgrouping**	**24 × SM/MM (4 × 6F Sub-Units)**	**900 µm tight-buffered + Aramid**	**12.2**	**138**	**2.7**	**122**
☐ **GX-SERIES (GX036D) 36F (6×6F) Subgrouping**	**36 × SM/MM (6 × 6F Sub-Units)**	**900 µm tight-buffered + Aramid**	**14.5**	**192**	**3.6**	**145**
☐ **GX-SERIES (GX072D) 72F (6×12F) Subgrouping**	**72 × SM/MM (6 × 12F Sub-Units)**	**900 µm tight-buffered + Aramid**	**18.8**	**310**	**4.5**	**190**

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
24 × SM/MM (4 × 6F Sub-Units)	**0.40**	**≤0.4 / 0.3 dB/km @ 1310/1550 nm**	**-40 to +85 °C**
36 × SM/MM (6 × 6F Sub-Units)	**0.40**	**≤0.4 / 0.3 dB/km @ 1310/1550 nm**	**-40 to +85 °C**
72 × SM/MM (6 × 12F Sub-Units)	**0.40**	**≤0.4 / 0.3 dB/km @ 1310/1550 nm**	**-40 to +85 °C**

– Every production length undergoes routine conductor DC resistance, high-voltage Spark/AC dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- MSHA / GX-Series Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/gx036d-msha-tight-buffered-subgrouping-aramid-mining-optical-cable

Typical values for this cable type, based on MSHA 30 CFR 7.408 / TIA-568 / MIL-PRF-85045. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.