



fiber optic cable series

Armoured Loose-Tube Fiber Optic Cable

CST or SWA metallic-armoured gel-filled loose-tube outdoor optical cable



IEC 60794-3-10

CST / SWA Armoured

3,000-5,000 N Crush

Application

Armoured Loose-Tube Fiber Optic Cable (4 to 144 fibres) with SZ-stranded PBT gel-filled buffer tubes, longitudinal water-blocking and corrugated steel tape (CST) or galvanized steel wire armour (SWA) for direct burial, ducts and.

Typical uses: Petrochemical & Refinery Plants, Railway Trackside Troughs & Tunnels, Power Utility Substation Links, Mining & Quarry Surface Backbones, Campus & Industrial Park Ducts

Construction



Cross-section, not to scale

1 Optical fibres

Up to 12 fibres per buffer tube

2 Loose buffer tubes**3** Central strength member**4** Core water-blocking barrier**5** Metallic mechanical & rodent armour**6** Outer protective jacket

Technical data

Typical values

Armour earthing	Metallic CST/SWA bonded at entry glands	Dielectric core option	FRP central rod + glass-yarn / CST hybrid
Sheath spark test	8 kV DC / 5 kV AC on outer PE jacket	Operating temperature	-40 °C to +70 °C
Installation temperature	-15 °C to +60 °C	Storage temperature	-40 °C to +75 °C
Thermal attenuation change	≤ 0.05 dB/km (-40 to +70 °C)	Tensile rating (CST)	2,700 N installation · 1,000 N long-term
Tensile rating (SWA)	5,000 N installation · 2,500 N long-term	Crush resistance	3,000 N/100 mm (CST) · 5,000 N/100 mm (SWA)
Min. bend radius	12.5 × OD (unloaded) · 25 × OD (loaded)	Impact resistance	25 J, 3 impacts (IEC 60794-1-21 Method E4)
Single-mode fibre	ITU-T G.652.D low-water-peak (9/125 µm)	Attenuation @ 1310 / 1550 nm	≤ 0.35 dB/km / ≤ 0.21 dB/km
PMD link design value	≤ 0.10 ps/√km (M = 20 cables, Q = 0.01 %)	Cabled fibre tensile strain	≤ 0.05 % permanent · ≤ 0.25 % @ max pull
Water penetration	1 m water head, 24 h, 3 m sample: zero leak	Rodent protection	Full steel tape or steel wire mechanical barrier
UV & environmental cracking	Carbon-black HDPE (≥ 2.5 %) per ASTM D1693	Compound drip test	No gel drip at +70 °C for 24 h (Method E14)
Standards	IEC 60794-3-10 & IEC 60794-3-11		

Sizes

9 standard constructions

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

Order designation	Fibre count & tubes	Outer Ø ≈ mm	Weight ≈ kg/km	Max. pull N	Min. bend R static mm
Corrugated Steel Tape Armoured (CST / GYTA53) 6 sizes					
☐ ALT-CST-006B1.3	6F (1 × 6F + 4 fillers)	10.2	115	2,700	128
☐ ALT-CST-012B1.3	12F (2 × 6F + 3 fillers)	10.2	118	2,700	128
☐ ALT-CST-024B1.3	24F (4 × 6F + 1 filler)	10.5	124	2,700	131
☐ ALT-CST-048B1.3	48F (4 × 12F + 1 filler)	11.2	138	2,700	140
☐ ALT-CST-096B1.3	96F (8 × 12F tubes)	13.6	188	3,000	170
☐ ALT-CST-144B1.3	144F (12 × 12F tubes)	16.4	265	3,000	205
Galvanized Steel Wire Armoured (SWA / GYTA33) 3 sizes					
☐ ALT-SWA-012B1.3	12F (2 × 6F + SWA)	13.4	285	5,000	168
☐ ALT-SWA-024B1.3	24F (4 × 6F + SWA)	13.8	298	5,000	173
☐ ALT-SWA-048B1.3	48F (4 × 12F + SWA)	14.6	335	5,000	183

– All configurations available with ITU-T G.652.D single-mode or OM3/OM4 multimode optical cores, and HDPE or LSZH outer jacket.

Standards and approvals

- ✓ IEC 60794-3-10 / IEC 60794-3-11
- ✓ ITU-T G.652.D / IEC 60793-2-50
- ✓ 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/armoured-loose-tube-fiber-optic-cable



Typical values for this cable type, based on IEC 60794-3-10 / IEC 60794-3-11 / ITU-T G.652.D. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.