MIL-DTL-22759 ETFE & RG-58 neutrally buoyant ROV tether

SPE-7589 BUOYANT COPPER

SPE-7589 MIL-DTL-22759 ETFE & RG-58 Neutrally Buoyant ROV Tether

MIL-DTL-22759 · 0.6/1 kV · Mil-dtl-22759 etfe & rg-58 neutrally buoyant rov tether



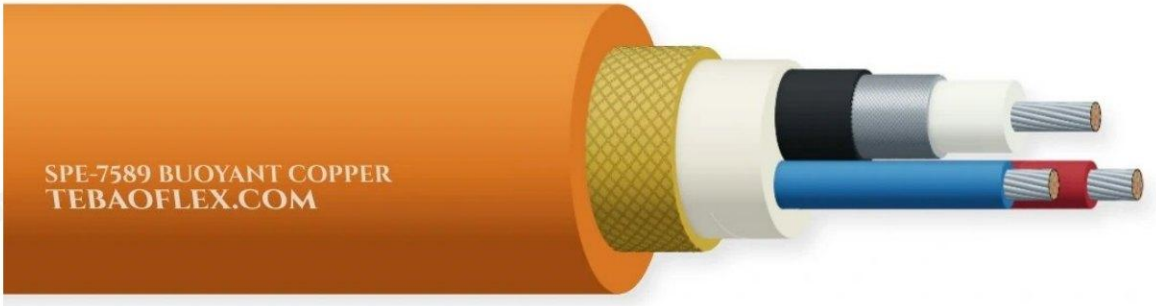
MIL-DTL-22759 ETFE | 600–1,000 V + RG-58 | SG 0.99 Buoyant PUR

Application

Buoyant Specialty Copper Series (SPE-7589 / 7175 / 7176 / 7604 / 7590 / 7224) MIL-DTL-22759 ETFE-Insulated Aramid-Braided Neutrally Buoyant ROV Tether Cable (MIL-DTL-22759, 0.6/1 kV, -40 to +80 °C, min. bend radius 10 × OD).

Typical uses: Work-Class & Observation ROV Systems, Offshore Wind & Subsea Power Grids, Oceanographic, Sonar & Seismic Survey, Commercial Diving & Subsea Intervention

Construction





Cross-section, not to scale

1. RG-58 Coaxial Unit
2. MIL-DTL-22759 ETFE Conductors (2×24 AWG)
3. Aramid Braided Strength Member (Code O)
4. Foamed PUR Buoyant Jacket (Code FQ)

Technical data

Typical values

Rated voltage / transmission duty	0.6/1 kV (MIL-DTL-22759 ETFE / RG-58 Subsea Buoyant Tether Standard)	**Core / conductor construction**	RG-58 Coaxial Unit — Stranded tinned copper center + PE dielectric + tinned copper braid shield
Primary dielectric / buffering	MIL-DTL-22759 ETFE Conductors (2×24 AWG) — High-reliability tinned copper wires with thin-wall ETFE insulation	**Continuous operating temperature**	−40…+80 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per MIL-DTL-22759 ETFE / RG-58 Subsea Buoyant Tether Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Foamed PUR Buoyant Jacket (Code FQ) — Closed-cell foamed polyurethane jacket (Ø 14.6 mm, specific gravity 0.99)	**Minimum bending radius**	10 × OD
Hydrostatic, tensile & crush duty	Aramid Braided Strength Member (Code O) — High-strength aramid braid rated to 1,200 lbs (up to 4,500 lbs in SPE-7590)	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per MIL-DTL-22759 ETFE / RG-58 Subsea Buoyant Tether Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per MIL-DTL-22759 ETFE / RG-58 Subsea Buoyant Tether Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	MIL-DTL-22759 ETFE / RG-58 Subsea Buoyant Tether Standard		

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
SPE-7589 BUOYANT COPPER Construction Schedule (−40…+80 °C) 3 sizes						
☐ **SPE-7589 BUOYANT COPPER Config A (Compact)**	4×2×24 AWG + 2×18 AWG (or 4C)	Stranded tinned Cu (IEC 60228 / ASTM)	10.4	155	4.5	85
☐ **SPE-7589 BUOYANT COPPER Config B (Standard)**	4×2×20 AWG + 4×16 AWG (or 8C)	Stranded tinned Cu (IEC 60228 / ASTM)	13.3	265	9.6	110
☐ **SPE-7589 BUOYANT COPPER Config C (Heavy Hybrid)**	8×2×20 AWG + 4×12 AWG (or 12C)	Stranded tinned Cu (IEC 60228 / ASTM)	16.6	420	18.5	140

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per MIL-DTL-22759 ETFE / RG-58 Subsea Buoyant Tether Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24 AWG + 2×18 AWG (or 4C)	28.40	0.6/1 kV (45–100 Ω data)	−40…+80 °C
4×2×20 AWG + 4×16 AWG (or 8C)	10.70	0.6/1 kV (45–100 Ω data)	−40…+80 °C
8×2×20 AWG + 4×12 AWG (or 12C)	5.40	0.6/1 kV (High-Power Hybrid)	−40…+80 °C

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

Standards and approvals

- MIL-DTL-22759 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/spe-7589-buoyant-copper

Typical values for this cable type, based on MIL-DTL-22759 ETFE / RG-58 Subsea Buoyant Tether Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.