EMAG all-dielectric aramid-reinforced LSOH mine shaft optical cable

ZW-NOTKtsdD

All-Dielectric LSOH Mine Shaft Optical Cable

ZN-TF-116 / IEC 60332-3-22 · 12–144F · All-dielectric aramid LSOH mine optical cable



ZN-TF-116 / EMAG | All-Dielectric 4500 N Aramid | Halogen-Free LSOH (ZW-N)

Application

ZW-NOTKtsdD EMAG-certified all-dielectric optical telecom cable for underground coal mines, vertical shafts and tunnels, combining a central FRP rod (D), SZ gel-filled PBT loose tubes (ts), dry core yarns (d), 4500 N aramid and black LSOH 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 Rod (D)
2. Gel-Filled Loose Tubes (6×12F ts)
3. Dry Core Water-Blocking System (d)
4. Peripheral Aramid Reinforcement
5. Black LSOH / FRNC Outer Sheath (ZW-N)

Technical data

Typical values

Rated voltage / transmission duty	Optical (ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22)	**Core / conductor construction**	Central Dielectric Rod (D) — Non-metallic Fiber-Reinforced Plastic (FRP) central strength member
Primary dielectric / buffering	Gel-Filled Loose Tubes (6×12F ts) — SZ-stranded PBT tubes containing up to 12 optical fibres per tube	**Continuous operating temperature**	-40 to +70 °C (mining & industrial service)
Short-circuit / peak thermal rating	Verified thermal stability per ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22	**Storage & transport temperature**	−40...+80 °C on export wooden/steel drum
Outer protection / armouring	Black LSOH / FRNC Outer Sheath (ZW-N) — UV-stabilized black halogen-free, low-smoke flame-retardant outer jacket	**Minimum bending radius**	15 × OD
Crush, impact & abrasion duty	Heavy-duty mining rock-cut, impact and tensile protection per ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22	**Flame retardancy & mine fire safety**	Self-extinguishing / flame-retardant mining jacket per ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22
Mine water, oil & chemical resistance	Resistant to acidic mine water, hydraulic oils and abrasion per ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22		

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
ZW-NOTKtsdD Construction Schedule (-40 to +70 °C) 3 sizes						
☐ ZW-NOTKtsdD 24J (6×4F) G.652.D LSOH	24 × SM G.652.D (6×4F All-Dielectric)	SZ gel tubes + Dry Core + Aramid	11.4	122	3.0	170
☐ ZW-NOTKtsdD 72J (6×12F) G.652.D LSOH	72 × SM G.652.D (6×12F All-Dielectric)	SZ gel tubes + Dry Core + Aramid	12.2	142	3.5	185
☐ ZW-NOTKtsdD 144J (12×12F) G.652.D LSOH	144 × SM G.652.D (12×12F All-Dielectric)	SZ gel tubes + Dry Core + Aramid	15.8	225	4.5	240

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
24 × SM G.652.D (6×4F All-Dielectric)	0.36	≤0.22 dB/km @ 1550 nm · 3.0 kN	-40 to +70 °C
72 × SM G.652.D (6×12F All-Dielectric)	0.36	≤0.22 dB/km @ 1550 nm · 3.5 kN	-40 to +70 °C
144 × SM G.652.D (12×12F All-Dielectric)	0.36	≤0.22 dB/km @ 1550 nm · 4.5 kN	-40 to +70 °C

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

Standards and approvals

- ZN-TF-116 / LSOH 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/zw-notktsdd-all-dielectric-aramid-reinforced-lsoh-mine-shaft-optical-cable

Typical values for this cable type, based on ZN-TF-116 / EN 60794-1-2 / IEC 60332-3-22. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.