ZN-TF-37 copper-steel bimetallic mining telephone & pull-cord cable

YnTKGMFLY

Copper-Steel Bimetallic Mining Telephone Cable

ZN-TF-37 / WT-TK-21 · 300 V · Copper-steel bimetallic mining telephone & signal cable



ZN-TF-37 / EMAG | Cu+Steel Bimetallic (MFL) | LOI ≥ 29% Cat. C FR-PVC

Application

YnTKGMFLY EMAG-approved underground mining telephone, intercom and pull-cord signalling cable per ZN-TF-37, featuring high-tensile copper-steel bimetallic conductors (MFL, 0.5 mm²), colour-coded PVC pairs and high-LOI Cat. C grey FR-PVC sheath.

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. Copper-Steel Bimetallic Conductors (MFL)
2. 5-Pair PVC Color Coding (Y)
3. Polyester Separator Tape
4. Mining Flame-Retardant Sheath (Yn)

Technical data

Typical values

Rated voltage / transmission duty	300 V (ZN-TF-37 / WT-TK-21 / IEC 60332-3-24)	**Core / conductor construction**	Copper-Steel Bimetallic Conductors (MFL) — Composite multi-wire copper + high-tensile steel strands (0.5 mm² / Ø 0.8 mm)
Primary dielectric / buffering	5-Pair PVC Color Coding (Y) — Pairs 1–5: Natural a-wire paired with Blue, Yellow, Green, Black & Red b-wire	**Continuous operating temperature**	-30 to +70 °C (mining & industrial service)
Short-circuit / peak thermal rating	Verified thermal stability per ZN-TF-37 / WT-TK-21 / IEC 60332-3-24	**Storage & transport temperature**	−40...+80 °C on export wooden/steel drum
Outer protection / armouring	Mining Flame-Retardant Sheath (Yn) — Grey high-LOI (LOI ≥ 29%) Cat. C flame-retardant PVC outer jacket	**Minimum bending radius**	10 × OD
Crush, impact & abrasion duty	Heavy-duty mining rock-cut, impact and tensile protection per ZN-TF-37 / WT-TK-21 / IEC 60332-3-24	**Flame retardancy & mine fire safety**	Self-extinguishing / flame-retardant mining jacket per ZN-TF-37 / WT-TK-21 / IEC 60332-3-24
Mine water, oil & chemical resistance	Resistant to acidic mine water, hydraulic oils and abrasion per ZN-TF-37 / WT-TK-21 / IEC 60332-3-24	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ZN-TF-37 / WT-TK-21 / IEC 60332-3-24		

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
YnTKGMFLY Construction Schedule (-30 to +70 °C) 3 sizes						
☐ YnTKGMFLY 2×2×0.8 (0.5 mm² MFL)	2 × 2 × 0.5 mm² Cu/Fe Bimetallic	Composite Cu + Steel strands	7.8	78	1.4	65
☐ YnTKGMFLY 5×2×0.8 (0.5 mm² MFL)	5 × 2 × 0.5 mm² Cu/Fe Bimetallic	Composite Cu + Steel strands	11.2	152	3.2	90
☐ YnTKGMFLY 10×2×0.8 (0.5 mm² MFL)	10 × 2 × 0.5 mm² Cu/Fe Bimetallic	Composite Cu + Steel strands	14.8	268	5.8	120

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per ZN-TF-37 / WT-TK-21 / IEC 60332-3-24.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
2 × 2 × 0.5 mm² Cu/Fe Bimetallic	48.00	≤96 Ω/km loop · 1.4 kN tensile	-30 to +70 °C
5 × 2 × 0.5 mm² Cu/Fe Bimetallic	48.00	≤96 Ω/km loop · 3.2 kN tensile	-30 to +70 °C
10 × 2 × 0.5 mm² Cu/Fe Bimetallic	48.00	≤96 Ω/km loop · 5.8 kN tensile	-30 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-37 / EMAG 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/yntkgmfly-copper-steel-bimetallic-underground-mining-telephone-signalling-cable

Typical values for this cable type, based on ZN-TF-37 / WT-TK-21 / IEC 60332-3-24. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.