

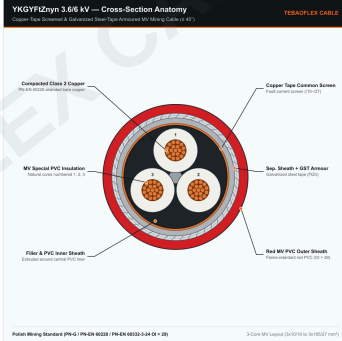
YKGYFtZnyn 3.6/6 kV Copper-Tape Screened & Steel-Tape Armoured MV Mining Cable

YKGYFtZnyn 3.6/6 kV is a Polish standard medium-voltage steel-tape armoured power cable engineered for primary underground substation interconnectors, main haulage roadway feeders, and inclined drifts up to 45° in underground, open-pit, and strip mines across Polish Upper Silesia and Czech Ostrava-Karvina coalfields.

1. CABLE CONSTRUCTION

1. Phase Conductors	Compacted circular multi-wire bare annealed copper conductors complying with PN-EN 60228 Class 2 (10 mm² through 185 mm²).
2. Core Insulation & Marking	Special medium-voltage PVC dielectric in Natural color with printed phase numerals 1, 2, 3, routine tested at 11 kV AC.
3. Central Liner & Core Layup	Three insulated phase cores helically stranded around a shaped central PVC profile liner for mechanical core stability.
4. Filler & Inner Sheath	Interstitial PVC or non-vulcanised rubber filler enclosed by an extruded PVC inner sheath.
5. Common Metallic Screen	Concentric bare copper tape screen (equivalent geometric cross-section /10 mm² up to /27 mm²) for earth-fault current return and radial field containment.
6. Separating Sheath	Moulded extruded PVC or lapped special PVC tape barrier isolating the copper screen from the steel armour against wet-mine galvanic corrosion.
7. Armour (FtZn)	Double helically applied galvanized steel tapes providing high radial crush and pick-impact protection on horizontal and ≤ 45° inclined roadways.
8. Outer Sheath	Red special non-flammable PVC outer sheath (Oxygen Index OI > 29), compliant with PN-EN 60332-1 and bundled vertical flame test PN-EN 60332-3-24 (IEC 60332-3).

Cross-Section Anatomy



YKGYFtZnyn 3.6/6 kV Cross-Section: Three compacted Class 2 bare copper cores (Natural Special PVC marked 1, 2, 3) stranded around a PVC liner, enclosed by filler/PVC inner sheath, copper-tape common screen, PVC separating sheath, double galvanized steel tape armour (FtZn), and red OI > 29 PVC outer sheath.

2. ELECTRICAL, MECHANICAL & FLAME-RETARDANT DATA

Cable Type Designation	YKGYFtZnyn 3.6/6 kV (Copper-Screened, Galvanized Steel Tape Armoured MV Mining Cable)
Rated Voltage (Uo/U)	3.6/6 kV (6 kV three-phase underground MV distribution)
Routine AC Test Voltage	11 kV AC (50 Hz)
Conductor & Screen Range	3 × 10/10 mm² up to 3 × 185/27 mm² (Compacted Class 2 Cu + Copper Tape Screen)
Maximum Route Inclination	Up to 45° from horizontal (brackets, hooks, or roadway trenches)
Operating & Short-Circuit Temp.	-30°C to +70°C continuous +160°C max. short-circuit conductor temperature
Minimum Bending Radius	10 × Overall Cable Diameter (387 mm to 727 mm across range)
Flame Retardancy & Jacket Color	Red special PVC with Oxygen Index OI > 29; PN-EN 60332-1 & PN-EN 60332-3-24 (IEC 60332-3)

TEBAOFLEX CABLE

YKGYFtZnyn 3.6/6 kV Copper-Tape Screened & Steel-Tape Armoured MV Mining Cable — Dimensional, Weight & Electrical Schedule

SKU: YKGYFTZNYN-366KV
https://tebaoflexrubbercable.com/

3. DIMENSIONAL, WEIGHT & ELECTRICAL SPECIFICATIONS

YKGYFtZnyn 3.6/6 kV — Master Mechanical & Electrical Schedule (3x10/10 to 3x185/27 mm²)									
Part Construction (mm²)	Approx. OD (mm)	Cable Weight (kg/km)	Max. DC Res. 20°C (Ω/km)	Inductivity (mH/km)	Reactance 50 Hz (Ω/km)	Earth Cap. (µF/km)	Earth Fault (A/km)	1s SC Rating (kA)	Current Rating (A)
3x10/10	38.7	2298	1.83	0.400	0.126	0.11	0.35	1.15	66
3x16/10	41.5	2711	1.15	0.372	0.117	0.11	0.37	1.84	85
3x25/14	44.5	3377	0.727	0.349	0.110	0.12	0.40	2.88	110
3x35/16	47.2	4241	0.524	0.338	0.106	0.13	0.41	4.03	133
3x50/18	51.0	5022	0.387	0.317	0.100	0.13	0.43	5.75	160
3x70/18	55.0	5989	0.268	0.299	0.094	0.14	0.45	8.05	197
3x95/20	60.0	7240	0.193	0.286	0.090	0.15	0.47	10.93	240
3x120/22	63.8	8272	0.153	0.278	0.087	0.15	0.49	13.80	276
3x150/24	69.3	9948	0.124	0.268	0.084	0.15	0.50	17.25	314
3x185/27	72.7	11978	0.0991	0.262	0.082	0.16	0.51	21.28	360

Screen Cross-Section Notation: In Polish designation 3x50/18, 3x50 indicates three 50 mm² compacted Class 2 copper phase conductors and /18 indicates an 18 mm² concentric copper-tape common metallic screen.