

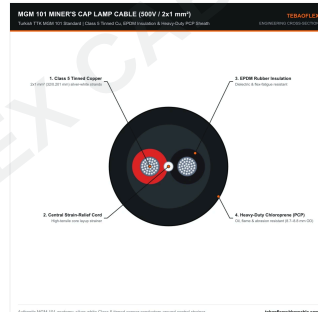
MGM 101 500V Miner's Cap Lamp Supply Cable (2x1 mm²)

MGM 101 is a 500 V two-core heavy-duty flexible rubber supply cord built under the Turkish TTK MGM 101 mining standard to power 4 V, 1 A underground headcap lamps from belt batteries, withstanding continuous flexing, perspiration, coal abrasion, and explosive methane-dust atmospheres.

1. CABLE CONSTRUCTION

1. Conductor	Electrolytic stranded tinned copper wire, IEC 60228 Class 5 (32 x 0.201 mm nominal stranding, 1.30 mm conductor diameter) for corrosion resistance and solderability.
2. Core Insulation	Ethylene Propylene Diene Monomer (EPDM) thermoset rubber offering high dielectric stability, low-temperature flexibility, and resistance to conductor cut-through.
3. Central Strainer & Layup	Two insulated cores helically laid with short pitch around a high-tensile non-metallic central strain-relief cord to prevent conductor elongation under axial pull.
4. Outer Sheath	Heavy-duty black chloroprene rubber (PCP / Neoprene) compound formulated for tear resistance, oil/perspiration durability, and flame retardance in underground coal mines.

Cross-Section Anatomy



MGM 101 Cross-Section (2x1 mm²): Two 32/0.201 mm Class 5 tinned copper cores insulated with EPDM rubber, laid around a central strain-relief cord inside a heavy-duty chloroprene sheath.

2. ELECTRICAL, MECHANICAL & STANDARD DATA

Reference Standard	Turkish Hard Coal Enterprises TTK MGM 101 & IEC 60228 Class 5
Rated Voltage (Uo/U)	500 V (designed for 4 V, 1 A cap lamp battery supply circuits)
Routine Test Voltage	500 V AC
Conductor Construction	2 x 1.0 mm ² (32 / 0.201 mm tinned annealed copper, nom. Ø 1.30 mm)
Overall Cable Diameter	8.7 mm min. – 8.8 mm max.
Minimum Bending Radius	44 mm (approx. 5 x overall cable diameter in flexing service)
Nominal Cable & Copper Weight	140 kg/km total cable weight 20 kg/km nominal copper weight
Environmental Resistance	Flame retardant, oil/acid mine-water resistant, ozone and abrasion resistant PCP jacket

3. DIMENSIONAL, ARMOUR & ELECTRICAL SPECIFICATIONS

MGM 101 — 500V Miner's Headcap Lamp Supply Cable Schedule									
Cable Type	Cores x Size (mm²)	Conductor Stranding (n/mm)	Nom. Cond. Dia. (mm)	Min. OD (mm)	Max. OD (mm)	Min. Bend Radius (mm)	Copper Wt. (kg/km)	Approx. Cable Wt. (kg/km)	
MGM 101	2 x 1	32 / 0.201	1.30	8.7	8.8	44	20	140	

Custom Lamp Cord Options: Custom core cross-sections (such as 2x0.75 mm², 2x1.5 mm², or 3-core auxiliary sensor/RFID cap-lamp cords) and pre-cut coil lengths are manufactured on request.