

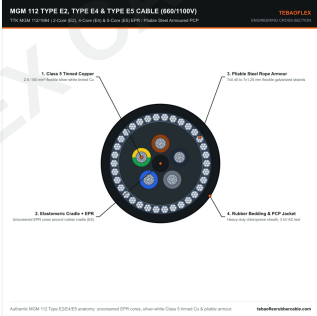
MGM 112 Type E2 (2C), Type E4 (4C) & Type E5 (5C) Pliable Armoured Mining Cable (660/1100V)

MGM 112 Type E2, Type E4, and Type E5 are 660/1100 V unscreened, pliable-armoured elastomeric cables manufactured to Turkish TTK MGM 112/1984, featuring Class 5 tinned copper conductors, EPR insulation, 7-wire galvanized steel rope armour, and heavy polychloroprene sheathing for underground coal mines.

1. CABLE CONSTRUCTION

1. Conductor	Electrolytic flexible stranded tinned copper wire per IEC 60228 Class 5 (0.25 mm to 0.50 mm elementary wire gauge depending on cross-section).
2. Core Insulation	Ethylene Propylene Rubber (EPR) thermoset compound (1.0 mm wall on 2x4 mm²; 1.4 mm to 2.3 mm wall across 4-core and 5-core sizes).
3. Central Elastomeric Cradle	Shaped rubber center cradle separating insulated cores in 4-core (Type E4) and 5-core (Type E5) formations to absorb compressive impact (omitted in 2-core Type E2).
4. Inner Sheath	Extruded vulcanized rubber inner bedding (2.0 mm to 5.0 mm radial thickness) providing a resilient seat under the steel wire strands.
5. Pliable Steel Rope Armour	Helical layer of 7-wire galvanized steel pliable strands (7/0.45 mm, 7/0.50 mm, 7/0.70 mm, 7/0.90 mm, or 7/1.25 mm) for crush resistance and reeling/relocation flexibility.
6. Outer Sheath	Heavy-duty black chloroprene rubber (PCP) compound (2.5 mm to 7.3 mm radial thickness) resistant to oil, abrasion, mine water, and flame spread.

Cross-Section Anatomy



MGM 112 Type E4 Cross-Section (4-Core Shown): Four unscreened Class 5 tinned copper EPR cores laid around a central elastomeric cradle, rubber inner bedding, 7-wire pliable GSW strand armour, and black PCP outer sheath.

2. ELECTRICAL, MECHANICAL & STANDARD DATA

Reference Standard	Turkish Hard Coal Enterprises TTK MGM 112/1984 & IEC 60228 Class 5
Rated Voltage (Uo/U)	660 / 1100 V AC
Routine Test Voltage	3000 V (3 kV) AC
Type Designations	Type E2 (2-Core: 2x4 mm²) Type E4 (4-Core: 4x2.5–4x150 mm²) Type E5 (5-Core: 5x4–5x16 mm²)
Continuous Current (25°C)	28 A (2.5 / 4 mm²) up to 320 A (4x150 mm²) at 25°C ambient
Minimum Bending Radius	10 x maximum overall cable diameter (264 mm to 953 mm)
Max. Conductor DC Resistance	8.21 Ω/km (2.5 mm²) down to 0.132 Ω/km (150 mm²) at 20°C
Environmental Properties	Flame-retardant, oil/emulsion resistant, tear and impact resistant PCP outer jacket

TEBAOFLEX CABLE

MGM 112 Type E2 (2C), Type E4 (4C) & Type E5 (5C) Pliable Armoured Mining Cable (660/1100V) — Dimensional, Weight & Electrical Schedule

SKU: MGM-112-TE2-E4-E5
https://tebaoflexrubbercable.com/

3. DIMENSIONAL, ARMOUR & ELECTRICAL SPECIFICATIONS

1. MGM 112 Type E2 (2-Core) & Type E5 (5-Core) — Pliable Armoured 660/1100V Schedule

Type & Size	Cond. Strand (n/mm)	Cond. Dia. (mm)	EPR Wall (mm)	Inner Sheath (mm)	Pliable Armour	Outer Sheath (mm)	Min. OD (mm)	Max. OD (mm)	Min. Bend (mm)	Current 25°C (A)	Cond. R (Ω/km)	Cu Wt. (kg/km)	Cable Wt. (kg/km)
Type E2 — 2x4	56/0.30	2.60	1.0	2.0	7 / 0.45	2.5	23.9	26.4	264	28	5.09	80	950
Type E5 — 5x4	56/0.30	2.60	1.4	2.0	7 / 0.45	2.5	31.0	32.3	323	28	5.09	200	1750
Type E5 — 5x6	84/0.30	3.30	1.5	2.0	7 / 0.50	3.8	38.0	40.0	400	46	3.39	290	2900
Type E5 — 5x10	80/0.40	4.40	1.5	2.5	7 / 0.70	3.8	42.4	45.0	450	63	1.95	480	3900
Type E5 — 5x16	126/0.40	5.50	1.5	2.5	7 / 0.70	3.8	46.5	48.9	489	85	1.24	770	4800

2. MGM 112 Type E4 (4-Core, 4x2.5 to 4x150 mm²) — Pliable Armoured 660/1100V Schedule

Cable Size	Cond. Strand (n/mm)	Cond. Dia. (mm)	EPR Wall (mm)	Inner Sheath (mm)	Pliable Armour	Outer Sheath (mm)	Min. OD (mm)	Max. OD (mm)	Min. Bend (mm)	Current 25°C (A)	Cond. R (Ω/km)	Cu Wt. (kg/km)	Cable Wt. (kg/km)
4x2.5	50/0.25	2.10	1.4	2.0	7 / 0.45	2.5	26.2	28.6	286	28	8.21	100	1280
4x4	56/0.30	2.70	1.4	2.0	7 / 0.45	2.5	27.7	30.1	301	37	5.09	160	1450
4x6	84/0.30	3.30	1.5	2.5	7 / 0.70	3.8	36.7	38.8	388	46	3.39	240	2450
4x10	80/0.40	4.40	1.5	2.5	7 / 0.70	3.8	38.8	41.0	410	63	1.95	390	2900
4x16	126/0.40	5.50	1.5	2.5	7 / 0.70	3.8	41.5	44.0	440	85	1.24	620	3600
4x25	196/0.40	7.10	1.6	2.5	7 / 0.70	4.3	46.1	49.8	498	110	0.795	960	4450
4x35	276/0.40	8.40	1.6	2.5	7 / 0.90	4.7	51.0	56.1	561	135	0.565	1350	5650
4x50	396/0.40	10.10	1.7	2.5	7 / 0.90	5.1	56.1	61.8	618	170	0.393	1920	7350
4x70	360/0.50	11.90	1.7	3.8	7 / 0.90	5.7	64.8	71.4	714	205	0.277	2690	9500
4x95	475/0.50	13.90	2.0	3.8	7 / 0.90	6.3	74.9	78.6	786	250	0.210	3650	10950
4x120	608/0.50	15.80	2.2	5.0	7 / 1.25	6.8	83.8	89.0	890	295	0.164	4610	15600
4x150	756/0.50	17.00	2.3	5.0	7 / 1.25	7.3	91.4	95.3	953	320	0.132	5760	18500

Radial Wall Verification: On 4x120 mm², the heavy-duty PCP outer sheath thickness is calibrated to 6.8 mm (consistent with the 83.8 – 89.0 mm overall diameter progression between 4x95 at 6.3 mm and 4x150 at 7.3 mm).