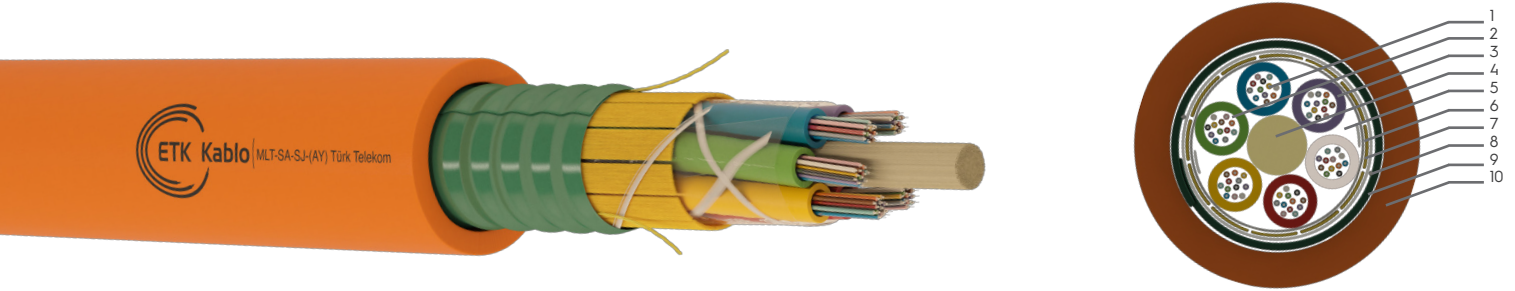


Fiber Optic Cables

MLT-SA-SJ-(AY50) Türk Telekom

A-DF(ZN)(SR)2Y Türk Telekom

Multi loose tube, corrugated steel tape armor fiber optic cable.



Application

- Direct burial and duct type applications.
- Suitable for pushing, blowing method.
- In heavy duty environments.
- As a backbone cable in telecommunication lines.

Cable Construction

- 1 - Optical fiber core ¹
- 2 - Waterproof thixotropic jelly
- 3 - PBT Tube
- 4 - Non-metallic central strength member (FRP)
- 5 - Jelly filling
- 6 - Core Wrapping (Polyester Tape)
- 7 - Non-metallic strength member (Aramid yarn)
- 8 - Ripcord
- 9 - Corrugated steel tape
- 10- UV resistant polyethylene (MDPE) orange outer jacket

Mechanical and Environmental Characteristics

	Test Standard	Specified Value	Acceptance Criteria
Maximum Installation Tension ²	IEC 60794-1-2-E1	3.0 x W(N), min. 5000 N	Fiber strain ≤ 0.33%
Maximum Operation Tension	IEC 60794-1-2-E1	1.0 x W(N), min. 1500 N	Δα ≤ 0.05 dB, No fiber strain
Crush Strength	IEC 60794-1-2-E3	3000 N / 100 mm, max. 15 min.	Δα ≤ 0.05 dB, No damage
Impact	IEC 60794-1-2-E4	10 Nm, 3 impacts, R= 300 mm	Δα ≤ 0.05 dB after the test
Torsion	IEC 60794-1-2-E7	1 m. 100N, +/- 180°, 10 cycles	Δα ≤ 0.05 dB, No damage
Repeated Bending	IEC 60794-1-2-E6	R=20x D, 100 N, 35 cycles	No damage
Bending Radius	IEC 60794-1-2-E11	R=20x D, 4 turns, 3 cycles	Δα ≤ 0.05 dB, No damage
Temperature Cycling	IEC 60794-1-2-F1	-20°C to +70°C	Δα ≤ 0.05 dB/km
Waterproofness	IEC 60794-1-2-F5B	Sample= 3 m, water column= 1 m	No water leakage in 24 hours.

Application

	Minimum Bending Radius		Temperature Range		
Operation	20 x cable Ø	Storage	-40 to +70°C	Installation	-30 to +60°C
Fixed	15 x cable Ø	Transport	-40 to +70°C	Operating	-40°C to +70°C

Marking, Packing, Delivery Lengths

Marking	ETK Kablo <Date of Manufacture> <Fiber Count and Type> <Length Marking>
Packing	Wooden drum with protection
Delivery Lengths	2 km, 4 km ± %5 tolerance

Notes

¹ Optical fiber core could be applied as G.652.D, G.655, G.657.A1, G.657.A2, OM1, OM2, OM3, OM4 according to customer demand.

² Maximum tensile strength could be changed according to customer demand.

Manufacturing Standard: Turkish Telecom Technical Specification

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Part Number	Core Type	Fiber Count	Tube Count	Filler Count	Tube Diameter (mm)	FRP Diameter (mm)	Cable Diameter (mm)	Cable Weight (kg/km)
3.843.2.6.1.0900.0.0004	SM G.652.D	4	2	4	2.05	2.2	12.3	152
3.843.2.6.1.0900.0.0006	SM G.652.D	6	3	3	2.05	2.2	12.3	166
3.843.2.6.1.0900.0.0012	SM G.652.D	12	6	0	2.05	2.2	12.3	170
3.843.2.6.1.0900.0.0024	SM G.652.D	24	6	0	2.05	2.2	12.3	169
3.843.2.6.1.0900.0.0036	SM G.652.D	36	6	0	2.05	2.2	12.3	169
3.843.2.6.1.0900.0.0048	SM G.652.D	48	4	2	2.25	2.2	12.7	178
3.843.2.6.1.0900.0.0060	SM G.652.D	60	5	1	2.25	2.5	12.7	179
3.843.2.6.1.0900.0.0072	SM G.652.D	72	6	0	2.25	2.5	12.7	180
3.843.2.6.1.0900.0.0096	SM G.652.D	96	8	0	2.25	2.7	13.6	213
3.843.2.6.1.0900.0.0144	SM G.652.D	144	12	0	2.25	2.7	17.5	302
3.843.2.6.1.0900.0.0192	SM G.652.D	192	16	2	2.25	2.7	17.8	319