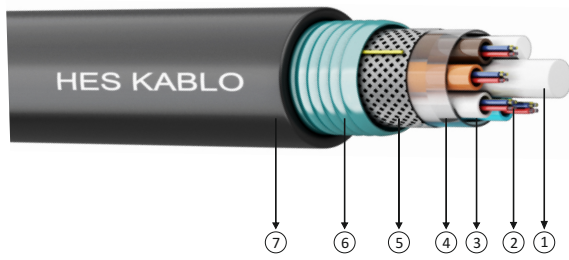


INDOOR CABLES | FE 180 Type Cables



- 1 Central Strength Member
- 2 Fiber
- 3 Loose Tube
- 4 Polyester Tape
- 5 Mika Tape
- 6 Corrugated Steel Tape
- 7 Outer Sheath

Loose Tube Colors

Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Violet, Pink, Turquoise.

Fiber Colors

Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Violet, Pink, Turquoise.

Inner Sheath : N/A

Armour : Corrugated Steel Tape

Outer Sheath : Black HFFR, thickness nominal 1.5 ± 0.1 mm.

Applications

Cable channels and cable trays are used in optical telecommunication networks of such structures as Metro (Subway) lines, tunnels etc.

Construction

Loose tubes are bent around FRP material with SZ twist method (or filler of any). Then mica tape and curly steel belt shield is implemented for FE 180 feature. They are covered with HFFR material. It has a water blocking feature.

TECHNICAL PROPERTIES								
Number Of Fiber	Loose Tube Count	Number Of Fiber	Number of Fiber in Per Tube	Central Strength Member OD	Central Strength Member Coated OD	Loose Tube Outer/Inner Diameter	Cable Diameter *	Cable Weight (Kg/km) *
4	1	5	4	2,2	N/A	2,0/1,4	12,5	190
6	3	3	2	2,2	N/A	2,0/1,4	12,5	190
8	2	4	4	2,2	N/A	2,0/1,4	12,5	190
12	3	3	4	2,2	N/A	2,0/1,4	12,5	191
16	4	2	4	2,2	N/A	2,0/1,4	12,5	192
24	6	0	4	2,2	N/A	2,0/1,4	12,5	193
36	6	0	6	2,5	N/A	2,4/1,7	13,6	224
48	6	0	8	2,5	N/A	2,4/1,7	13,6	225
60	5	1	12	2,7	N/A	2,6/1,8	14,2	242
72	6	0	12	2,7	N/A	2,6/1,8	14,2	244
96	8	0	12	2,7	4,5	2,6/1,8	16,0	296
144	12	0	12	2,7	8	2,6/1,8	19,5	415

MECHANICAL AND ENVIRONMENTAL PROPERTIES		
Physical Tests	Conditions	Standard
Tensile Strength	2000 N Tensile Strength (Installation) 1000 N Tensile Strength (Operation)	IEC 60794-1-21-E1
Impact Resistance	10J, 3 impacts	IEC 60794-1-21-E4
Crush Resistance	2000 N/ 10cm	IEC 60794-1-21-E3
Bend Radius (During Installation)	20x Cable Diameter	IEC 60794-1-21-E11
Bend Radius (During Service)	10x Cable Diameter	IEC 60794-1-21-E11
Operation Storage and Transportation	-40 to +70 °C	IEC 60794-1-22-F1
Installation Temperature	-5 to +60 °C	N/A
Water Penetration Test	24 hours 3m length	IEC 60794-1-22 F5
Fire Test**	FE-180 IEC 60332-1-2 IEC 60754-2 IEC 61034-2 IEC 60332-3-24	IEC 60331-25 IEC 60332-1-2 IEC 60754-2 IEC 61034-2 IEC 60332-3-24

* : Tolerance $\pm 10\%$.

** : These test case apply to HFFR sheathed cables.