



- ① Central Strength Member
- ② Fiber
- ③ Loose Tube
- ④ Polyester Tape
- ⑤ Outer Sheath

Loose Tube Colors

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

Fiber Colors

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

Inner Sheath : N/A

Armour : N/A

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

Applications

Used in cable channels or cable trays in communication networks within the building.

Construction

Loose tubes are bent around FRP material with SZ twist method (or filler of any). Then they are covered with HFFR material using adequate aramid / glass yarns. It has a water blocking feature.

TECHNICAL PROPERTIES

Number Of Fiber	Loose Tube Count	Number Of Filler	Number of Fiber in Per Tube	Central Strength Member OD	Central Strength Member Coated OD	LooseTube Outer/Inner Diameter	Cable Diameter *	Cable Weight (Kg/km) *
8	2	4	4	2,5	N/A	2,4/1,7	10,8	130
12	3	3	4	2,5	N/A	2,4/1,7	10,8	131
16	4	2	4	2,5	N/A	2,4/1,7	10,8	133
24	6	-	4	2,5	N/A	2,4/1,7	10,8	135
36	6	-	6	2,5	N/A	2,4/1,7	10,8	135
48	6	-	8	2,5	N/A	2,4/1,7	10,8	136
72	6	-	12	2,7	N/A	2,6/1,8	11,4	150
96	8	-	12	2,7	4,5	2,6/1,8	13,2	183
144	12	-	12	2,7	8,0	2,6/1,8	16,7	248
288	24	-	12	2,7	5,4	2,6/1,8	19,3	428
432	18	-	24	3,0	N/A	2,8/1,8	17,7	377

MECHANICAL AND ENVIRONMENTAL PROPERTIES

Physical Tests	Conditions	Standard
Tensile Strength	2700 N Tensile Strength (Installation) 1700 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**	IEC 60332-1-2 IEC 60754-2 IEC 61034-2	IEC 60332-1-2 IEC 60754-2 IEC 61034-2

* : Tolerance $\pm 10\%$.

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