



- 1 Central Strength Member
- 2 Fiber
- 3 Loose Tube
- 4 Polyester Tape
- 5 Inner Sheath
- 6 Corrugated Steel Tape
- 7 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 : Black LDPE, Thickness nominal $1,0 \pm 0,1$ mm.

Armour : Corrugated Steel Tape

Outer Sheath : Black MDPE, Thickness nominal $1,5 \pm 0,1$ mm.

Applications

They are used in a pipe made of HDPE etc. materials in long range and local communication networks or directly burying in the ground.

Construction

Loose tubes are bent around FRP material with SZ twist method (or filler of any). Then they are covered with intercardinal cover using aramid / glass yarns.

Curly steel belt is used as a shield. They are covered with MDPE 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) *
8	2	4	4	2,5	N/A	2,4/1,7	14,8	207
12	3	3	4	2,5	N/A	2,4/1,7	14,8	208
16	4	2	4	2,5	N/A	2,4/1,7	14,8	209
24	6	-	4	2,5	N/A	2,4/1,7	14,8	211
36	6	-	6	2,5	N/A	2,4/1,7	14,8	211
48	6	-	8	2,5	N/A	2,4/1,7	14,8	212
72	6	-	12	2,7	N/A	2,6/1,8	15,4	230
96	8	-	12	2,7	4,5	2,6/1,8	17,2	274
144	12	-	12	2,7	8,0	2,6/1,8	20,7	352
288	24	-	12	2,7	5,3	2,6/1,8	23,2	484

MECHANICAL AND ENVIRONMENTAL PROPERTIES

Physical Tests	Conditions	Standard
Tensile Strength	2500 N Tensile Strength (Installation) 1500 N Tensile Strength (Operation)	IEC 60794-1-21-E1
Impact Resistance	10J, 3 impacts	IEC 60794-1-21-E4
Crush Resistance	4000 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	-30 to +60 ° C	N/A
Water Penetration Test	24 hours 3m length	IEC 60794-1-22 F5
Fire Test**	N/A	N/A

* : Tolerance $\pm 10\%$.

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