Dielectric Gel-filled Flat Drop Cable

Description

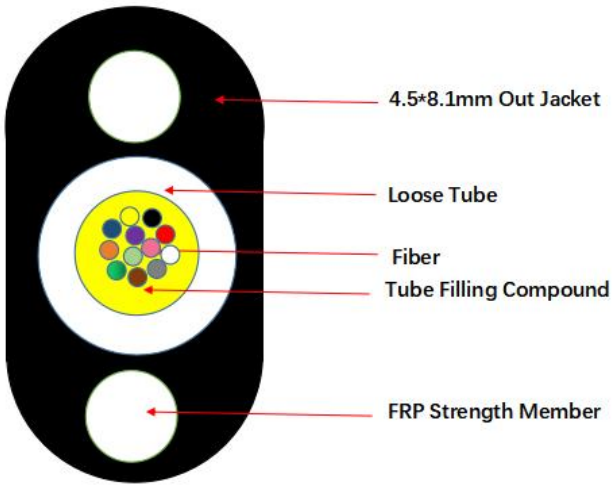
The Dielectric Flat Drop Cable Gel-Filled is designed for self-supporting, direct-buried and duct installations. Fully dielectric design, ideal for drop applications, offering ease of access as well as easy installation. Single loose tube made of PBT which provides great mechanical properties under a wide range of conditions such as crush test and impact test, and is filled with water blocking gel.

PE single jacket with additives makes a resistant, durable and easy to strip cable, providing superior protection against UV radiation, fungus, abrasion and other environmental factors.
Two parallel dielectric strength members that require no bonding or grounding, offering exceptional crush resistance.

Features

Compact, easy-to-access design allows for streamlined installation and handling.
Suitable for self-supporting aerial, direct buried, and duct FTTX drop installations.
Compatible with industry-standard wedge clamps and closure strain reliefs.
Excellent tensile strength and crush resistance.
Optimized for optical fiber counts of 1, 2, 4, 6, 8, 12, and 24.
All-dielectric construction eliminates the need for bonding or grounding.

Cable Construction



Specifications

ITEMS		DESCRIPTION
Fiber count		1, 2, 4, 6, 8, 12
The Color Code of The fibers		Blue,Orange,Green, Brown, Gray, natural,Red, Black, Yellow,Violet,Pink,Turquoise
Loose Tube	OD(mm):	3.0±0.1
	Material：	PBT
Water Block Material：		Gel
Strength member		G-FRP
FRP Diameter		1.6±0.1mm
Sheath	Thickness:	Non. 1.0mm
	Material：	HDPE
OD of cable (mm)		4.5*8.1mm±0.3
Net weight (kg/km)		33

Fiber Identification

NO.	1	2	3	4	5	6	7	8	9	10	11	12
Fiber Color	Blue	Orange	Green	Brown	Slate	natural	Red	Black	Yellow	Violet	Pink	Aqua

Optical Fiber Specification

Single Mode Fiber

LTEMS	UNITS	SPECIFICATION	
Fiber type		G652D	G657A
Attenuation	dB/km	1310nm ≤ 0.36 1550nm ≤ 0.22	
Chromatic Dispersion	ps/nm.km	1310nm≤ 3.5 1550nm≤ 18 1625nm≤ 22	

Zero Dispersion Slope	ps/nm2.km	≤ 0.092	
Zero Dispersion Wavelength	nm	1300 ~ 1324	
Cut-off Wavelength (λcc)	nm	≤ 1260	
Attenuation vs. Bending (60mm x100turns)	dB	(30mm radius，100ring)≤ 0.1 @ 1625nm	(10mm radius，1ring)≤ 1.5 @ 1625nm
Mode Field Diameter	μm	9.2 ± 0.4 at 1310nm	9.2 ± 0.4 at 1310nm
Core-Clad Concentricity	μm	≤ 0.5	≤ 0.5
Cladding Diameter	μm	125±1	125±1
Cladding Non-circularity	%	≤ 0.8	≤ 0.8
Coating Diameter	μm	245±5	245±5
Proof Test	Gpa	≥ 0.69	≥ 0.69

Mechanical and Environmental Performance of the Cable

NO.	ITEMS	TEST METHOD	ACCEPTANCE CRITERIA
1	Tensile Loading Test	#Test method:IEC 60794-1-E1 -. Long-tensile load： 400N -. Short-tensile load： 1350N -. Cable length： ≥50m	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
2	Crush Resistance Test	#Test method:IEC 60794-1-E3 -.Long load： 1000 N/100mm -.Short load： 3000 N/100mm Load time： 1 minutes	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage

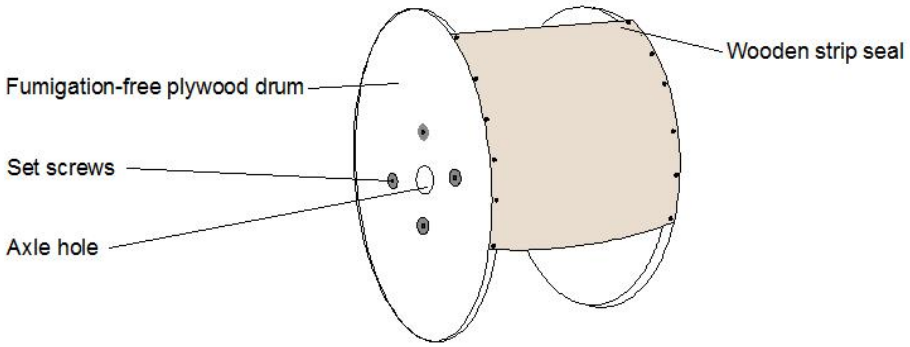
3	Impact Resistance Test	#Test method:IEC 60794-1-E4 -.Impact height： 1 m -.Impact weigh： 450 g -.Impact point：≥5 -.Impact frequency：≥3/point	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
4	Repeated Bending	#Test method:IEC 60794-1-E6 -.Mandrel diameter：20D (D = cable diameter) -.Subject weight：15kg -.Bending frequency：30 times -.Bending speed：2s/time	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
5	Torsion Test	#Test method:IEC 60794-1-E7 -.Length：1m -.Subject weight:25kg -.Angle：±180 degree -.Frequency：≥10/point	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
6	Water Penetration Test	#Test method:IEC 60794-1-F5B -.Height of pressure head：1m -.Length of specimen：3m -.Test time: 24 hours	-. No leakage through the open cable end
7	Temperature Cycling Test	#Test method:IEC 60794-1-F1 -.Temperature steps：＋20℃、－40℃、＋70℃、＋20℃ -.Testing Time：24 hours/step -.Cycle index：2	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
8	Drop Performance	#Test method:IEC 60794-1-E14 -.Testing length：30cm -.Temperature range：70±2℃ -.Testing Time：24 hours	-. No filling compound drop out
9	Temperature	Operating:-40℃~+60℃ Store/Transport :-50℃~+70℃ Installation -20℃~+60℃	

Fiber Optic Cable Bending Radius

Static bending：≥10 times than cable out diameter
Dynamic bending：≥20times than cable out diameter.

Packing & Mark

Not allowed two length units of cable in one drum, two ends should be sealed,. Two ends should be packed inside drum, reserve length of cable not less than 3 meters.



Cable Mark: Brand, Cable type, Fiber type and counts, Year of manufacture, Length marking.

We meet or exceed the following international standards:

- Telcordia GR-20: Generic requirements for optical fiber and optical fiber cable.
- IEC 60794: Basic requirements for optical fiber and cable elements.
- ANSI/ICEA S-87-640: Standard for optical fiber outside plant communications cable.