

Optical Fiber Cable Technical Specification

Overview

ADSS Cable Span 120m GYFY(3U)

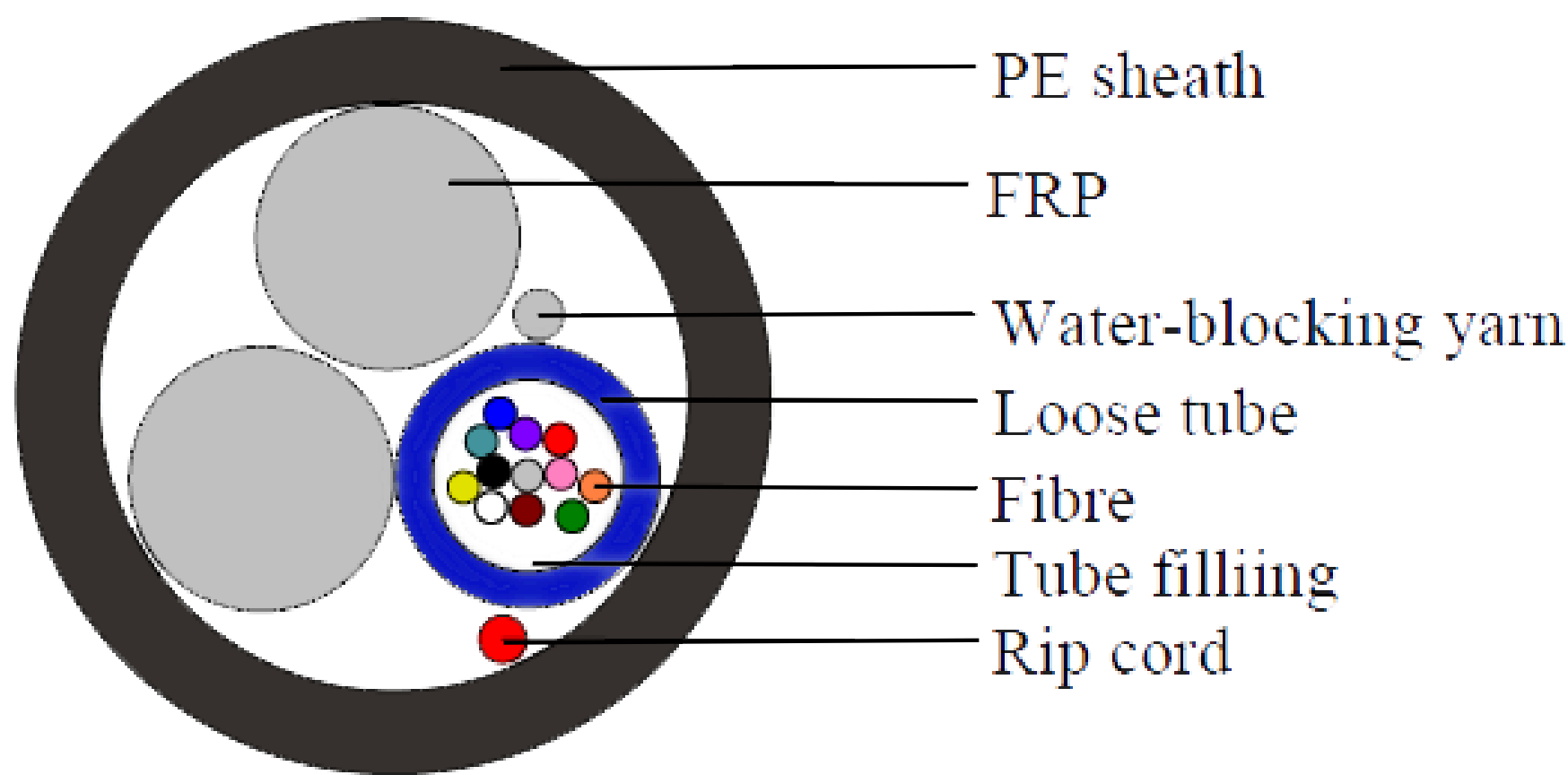
All dielectric, self-supporting cable, suitable for outside plant use in aerial installations.



Dimension and descriptions

Item	Contents	120M SPAN Value
		2~12
Loose tube	Number	1
	Diameter (mm)	2.3±0.03mm
FRP	Number	2
	Diameter (mm)	2.2±0.02mm *2
Water Blocking Material	Material	Water Blocking Yarn
Sheath	Material	PE
	Color	Black
	Thickness (mm)	1.2mm ±0.1mm
Ripcord	Number	1
Cable diameter(mm) Approx.		7.2mm ±0.2mm
Cable weight(kg/km) Approx.		50
Max allowable tension (N)		1200N
Crush(N/100mm)	Long term	750N
	Short term	1200N

Cross section of cable



Referential image

Fiber and Loose Tube Identification

The color code of the optical fibers and the loose tubes responds to the EIA-TIA 598-A specification, as detailed:

Blue

Orange

Green

Brown

Grey

White

Red

Black

Yellow

Purple

Pink

Aqua

Optical fiber

Optical Fibres supplied in this specification meet the requirements of ITU-T G.652D

Category	Description	Specification
Geometrical Characteristics	Cladding diameter	125.0 ± 1 µm
	Cladding non-circularity	≤ 1.0 %
	Core concentricity error	≤ 0.6µm
	Coating diameter	245± 7 µm(Before Colored) 250 ± 15 µm (Colored)
	Coating/cladding concentricity error	≤ 12µm
Optical Characteristics	Mode field diameter at 1310 nm	8.7-9.6 µm
	Point discontinuity	≤ 0.05dB
	Attenuation at 1310 nm	≤ 0.36 dB/km
	Attenuation at 1550 nm	≤ 0.22 dB/km
	Dispersion in 1285 – 1340 nm	≥-3.4 ≤ 3.4 ps/(nm·km)
	Dispersion at 1550 nm	≤ 18 ps/(nm·km)
	Dispersion at 1625 nm	≤ 22 ps/(nm·km)
	Zero dispersion wavelength	1300 – 1324 nm
	Zero dispersion slope	≤ 0.091 ps/(nm ² ·km)
	Cable cut-off wavelength	≤ 1260 nm
	Polarization mode dispersion individual fibre	≤ 0.2 ps/Vkm
	Polarization mode dispersion design link value (M=20, Q=0.01%)	≤ 0.1 ps/Vkm
Mechanical Specification	Macro-bend loss (100 turns, 30mm radius, 1550/1625nm)	≤ 0.05 dB
	Proof stress level	≥100kpsi (0.69 GPa)
	Coating strip force(peak value)	1.3~8.9N
	Fibre curl (Radius)	≥ 4 m

Application specifications

Item	Value
Max. pole distance	120m
Operation temperature	-40 °C~ +70 °C
Storage temperature	-40 °C~ +70 °C
Static bending radius	10 times the cable diameter
Dynamic bending radius	20 times the cable diameter

Mechanical, Physical and Environmental Test Characteristics @1550nm

Item	Test Method	Requirements
Tension	IEC 60794-1-2-E1 Load: According to 3.5 Sample length: Not less than 25m. Duration time: 1min.	Additional attenuation: ≤0.1dB after test No damage to outer jacket and inner elements
Crush	IEC 60794-1-2-E3 Load: According to 3.5 Duration of load: 1min	Additional attenuation: ≤0.1dB after test No damage to outer jacket and inner elements
Impact	IEC 60794-1-2-E4 Radius: 300mm Impact energy: 4.5J Impact number: 1 Impact points:3	Additional attenuation: ≤0.1dB No damage to outer jacket and inner elements
Bend	IEC 60794-1-2-E11A Mandrel radius:10*D Turns:5 Cycles:5	Additional attenuation: ≤0.1dB No damage to outer jacket and inner elements
Repeated bending	IEC 60794-1-2-E6 Bending radius: 20*D Cycles: 30 Load: 150N	Additional attenuation: ≤0.1dB No damage to outer jacket and inner elements
Torsion	IEC 60794-1-2-E7 Cycles:10 Length under test: 1m Turns: ± 180° Load: 150N	Additional attenuation: ≤0.1dB No damage to outer jacket and inner elements
Temperature cycling	IEC 60794-1-2-F1 Sample length: at least 1000m Temperature range: -20 →+65 Cycles: 2 Temperature cycling test dwell time: 12 hours	The change in attenuation coefficient shall be less than 0.05 dB/km
Water Penetration	IEC 60794-1-2-F5B Time : 24 hours Sample length : 3m Water height : 1m	No water leakage.
Other parameters	According to IEC 60794 -1	

Packaging and drum

Cable Sheath Marking

Color: white
Contents: DRAKO, the year of manufacture, the type of cable, cable number, length marking
Interval: 1 m

Outer sheath marking legend can be changed according to user's requests.

Reel lenght

Standard reel length: 2/3/4 km/reel, other length is also available.

Cable drum

The cables are packed in Plywood or fu-migated wooden drums

How to order

OFC		
Model Name	Description	P/N
Aerial Optical Cable	2FO G.652D ADSS Span 120 GYFY(3U)	AOC001
	4FO G.652D ADSS Span 120 GYFY(3U)	AOC002
	6FO G.652D ADSS Span 120 GYFY(3U)	AOC003
	8FO G.652D ADSS Span 120 GYFY(3U)	AOC004
	12FO G.652D ADSS Span 120 GYFY(3U)	AOC005
	24FO G.652D ADSS Span 120 GYFY(3U)	AOC006