NETSYS
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FIBER OPTIC

OUTDOOR FIBER OPTIC CABLE

OUTDOOR FIBER OPTIC CABLE IS A TYPE OF OPTICAL CABLE THAT IS SPECIFICALLY DESIGNED FOR OUTDOOR USE. IT IS TOUGH, CAN WITHSTAND WIND AND SUN EXPOSURE, AND HAS A ROBUST OUTER JACKET TO PROTECT THE CABLE.

FIBER CABLE 96 CORE SINGLE MODE OS2 9/125 GYTS

NS-401SM096

DESCRIPTION

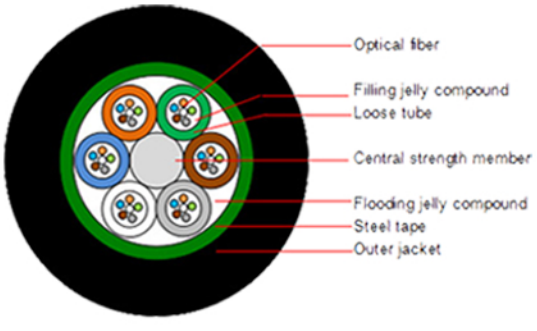
- The bers, 250µm, are positioned in a loose tube made of a high modulus plastic.
- The tubes are lled with a water-resistant Ring compound.
- A steel wire, sometimes sheathed with polyethylene (PE) for cable with high fiber count, locates in the center of core as a metallic strength member.
- Tubes (and Hers) are stranded around the strength member into a compact and circular cable core.
- The PSP is longitudinally applied over the cable core, witch is flled with the Ring compound to protect it from water ingress.
  Then, the cable is completed with a PE sheath.

THE FOLLOWING MEASURES ARE TAKEN TO ENSURETHE CABLE WATERTIGHT:

- Steel wire used as the central strength member.
- Loose tube filling compound.
- 100% cable core filling .
- PSP enhancing moisture-proof.

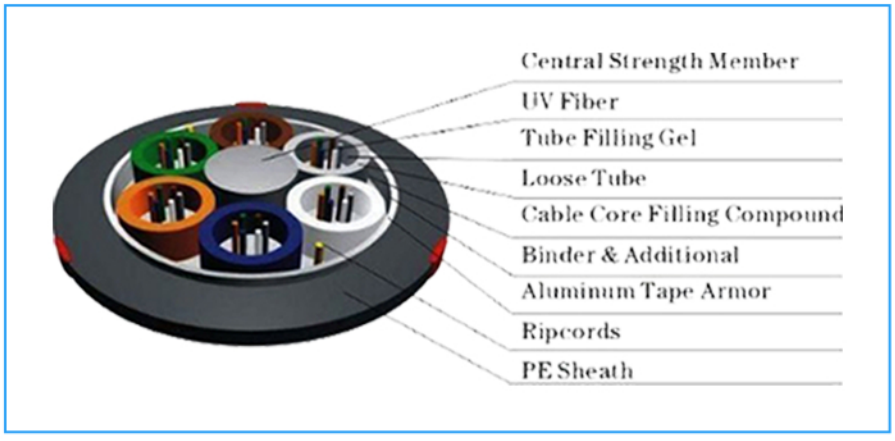
FEATURES

- Good mechanical and temperature performance.
- High strength loose tube that is hydrolysis resistant.
- Special tube filling compound ensure a critical protection of fiber.
- Special designed compact structure is good at preventing loose tubes from shrinking.
- Crush resistance and flexibility.
- PE sheath protects cable from ultraviolet radiation.



GYTS

TECHNICAL SPECIFICATION



1.Technical Parameters

Cable Type 2 (Increased by 2 bers)	Fiber Count	Tubes	Fillers	Cable Diameter (mm)	Cable Weight (kg/km)	Tensile Strength Long/Short term (N)	Crush Resistance Long/Short term (N/100mm)	Bending Radius Static/Dynamic (mm)
GYTS-2~6	2~6	1	4	9.5	100	600/1500	300/1000	10D/20D
GYTS-8~12	8~12	2	3	9.5	100	600/1500	300/1000	10D/20D
GYTS-14~18	14~18	3	2	9.5	100	600/1500	300/1000	10D/20D
GYTS-20~24	20~24	4	1	10.5	100	600/1500	300/1000	10D/20D
GYTS-26~30	26~30	5	0	10.5	100	600/1500	300/1000	10D/20D
GYTS-32~36	32~36	6	0	10.5	119	1000/3000	300/1000	10D/20D
GYTS-38~48	38~48	4	1	11.0	136	1000/3000	300/1000	10D/20D
GYTS-50~60	50~60	5	0	11.0	136	1000/3000	300/1000	10D/20D
GYTS-62~72	62~72	6	0	12.0	155	1000/3000	300/1000	10D/20D
GYTS-74~84	74~84	7	1	13.6	192	1000/3000	300/1000	10D/20D
GYTS-86~96	86~96	8	0	13.6	192	1000/3000	300/1000	10D/20D
GYTS-98~108	98~108	9	1	15.0	227	1000/3000	300/1000	10D/20D
GYTS-110~120	110~120	10	0	15.0	227	1000/3000	300/1000	10D/20D
GYTS-122~132	122~132	11	1	16.9	227	1000/3000	300/1000	10D/20D
GYTS-134~144	134~144	12	0	16.9	227	1000/3000	300/1000	10D/20D

TECHNICAL SPECIFICATION

2. Optical Characteristics

Characteristics		Conditions	Specified values	Units
Attenuation		1310nm	≤0.36	[dB/km]
		1383nm(after H_2-aging)	≤0.36	[dB/km]
		1550nm	≤0.22	[dB/km]
		1625nm	≤0.24	[dB/km]
Attenuation vs. Wavelength Max. α difference		1285-1330nm, in reference to 1310nm	≤0.03	[dB/km]
		1525-1575nm, in reference to 1550nm	≤0.02	[dB/km]
Dispersion Coefficient		1285-1340nm	-3.5 to 3.5	[ps/(nm·km)]
		1550nm	≤18	[ps/(nm·km)]
		1625nm	≤22	[ps/(nm·km)]
Zero Dispersion Wavelength(λ_0)		--	1300-1324	[nm]
Zero Dispersion Slope(S_0)		--	≤0.092	[ps/(nm²·km)]
Typical Value		--	0.086	[ps/(nm²·km]
PMD	Maximum Individual Fibre	--	≤0.1	[ps/√km]
	Link Design Value（M=20, Q=0.01%）	--	≤0.06	[ps/√km]
	Typical Value	--	0.04	[ps/√km]
Cable Cutoff Wavelength (λ_{CC})		--	≤1260	[nm]
Mode Field Diameter（MFD）		1310nm	8.7-9.5	[μm]
		1550nm	9.8-10.8	[μm]
Effective Group Index of Refraction（N_{eff}）		1310nm	1.466	--
		1550nm	1.467	--
Point Discontinuities		1310nm	≤0.05	[dB]
		1550nm	≤0.05	[dB]

3. Environmental Characteristics

1310nm, 1550nm & 1625nm			
Characteristics	Conditions	Specified values	Units
Temperature Dependence Induced Attenuation	-60°C to +85°C	≤0.05	[dB/km]
Temperature-Humidity Cycling Induced Attenuation	-10°C to +85°C, 98% RH	≤0.05	[dB/km]
Water Immersion Dependence Induced Attenuation	23°C， for 30 days	≤0.05	[dB/km]
Damp Heat Dependence Induced Attenuation	85°C and 85% RH， for 30 days	≤0.05	[dB/km]
Dry Heat Aging	85°C, for 30 days	≤0.05	[dB/km]

TECHNICAL SPECIFICATION

4. Geometrical Characteristics

Characteristics	Conditions	Specified values	Units
Cladding Diameter	--	125.0±0.7	[μm]
Cladding Non-Circularity	--	≤1.0	[%]
Coating Diameter	--	235-250	[μm]
Coating-Cladding Concentricity Error	--	≤12.0	[μm]
Coating Non-Circularity	--	≤6.0	[%]
Core-Cladding Concentricity Error	--	≤0.6	[μm]
Curl(radius)	--	≥4	[m]
Delivery Length	--	Up to 50.4	[km/reel]

5. Mechanical Specifications

Characteristics		Conditions	Specified values	Units
Proof Test		--	≥9.0	[N]
		--	≥1.0	[%]
		--	≥100	[kpsi]
Macro-bend Induced Attenuation	100 Turns Around a Mandrel of 30 mm Radius	1625nm	≤0.05	[dB]
	100 Turns Around a Mandrel of 25 mm Radius	1310nm and 1550nm	≤0.05	[dB]
	1 Turn Around a Mandrel of 16 mm Radius	1550nm	≤0.05	[dB]
Coating Strip Force		typical average force	1.5	[N]
		peak force	1.3-8.9	[N]
Dynamic Fatigue Parameter(n_d)		--	≥20	--

Loose tube color:								
NO.	1	2	3	4	5	6	7	8
Color	blue	oranage	green	brown	gray	white	red	Black

Fiber color:								
NO.	1	2	3	4	5	6	7	8
Color	blue	oranage	green	brown	gray	white	red	Black

TECHNICAL SPECIFICATION

Fiber count		/	24	48	72	96	144
Structure		/	1+6				
Fiber type		/	G652D				
Central strengthen member	Material	mm	Steel				
	OD（Average）		2.1±0.1				
Loose tube	Material	mm	PBT				
	OD（Average）		2.1±0.1				
	Thickness（Average）		0.30±0.1				
	Fiber max/tube		12	12	12	12	12
	Loose tube color		Standard color				
	Extra fiber length	%	0.2~0.4				
Water blocking	Material	/	Flooding Compound+Water blocking tape+steel armor tape				
Outer jacket	Material		HDPE				
	Thickness	mm	2				
OD		mm	10.6	10.6	12.8	13.5	15.0
Cable weight（Average）		Kg/km	100	100	110	120	140
Tension strength	Long term	N	600				
	Short term		1500				
Crush resistance	Long term	N/100mm	300				
	Short term		1000				
Bending Ridus	Static	mm	10D				
	Dynamic		20D				
Environment Temperature	Installation	℃	-30/+60				
	Operation		-40/+70				