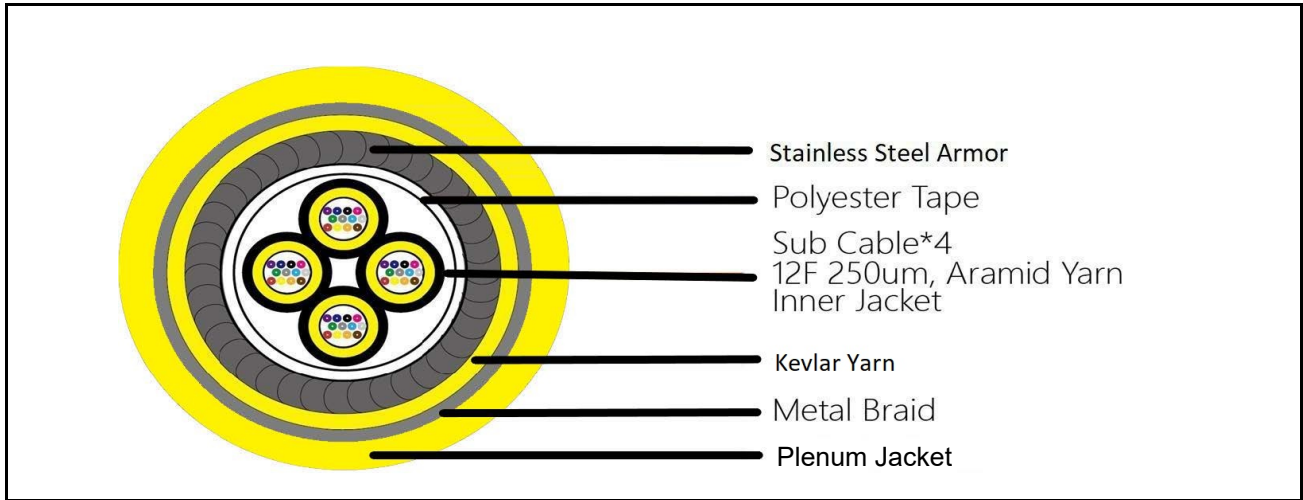


**nanoFIBER: STAINLESS STEEL ARMORED PLENUM
48 STRAND SINGLMODE LOOSE TUBE BEND INSENSITIVE GLASS**

SPECIFICATION SHEET Item# SM48L-A2-PL



CONSTRUCTION

1. Optical Fiber: 48 Core 250um OS2 G.657.A2
2. Sub-Cable OD: 2.0±0.1 mm (x4)
3. Steel Armored Tube OD: 6.8±0.1 mm Material: SUS-202 Sprial
4. Kevlar
5. Metal Braiding: 6B
6. Outer Jacket: Plenum Rated PVC
Color: Yellow 122C
Diameter: 10.5±0.5mm
7. Cable Legend:
 P2P nanoFIBER OPTIC ARMORED PLENUM CABLE SM48L-A2-PL 48F OS2 G.657.A2
 YYWW XXXX METER

FIBER OPTIC PARAMETERS

Optical Fiber Type	UNIT	SM G.657.A2
Wave Length	nm	1310/1550
Attenuation	dB/Km	0.5/0.4

MECHANICAL PARAMETERS

Performance	Long-Term	Short-Term
Max. Tension(N)	100	200
Max. Crush Resistance (N/100mm)	1000	3000
Min. Bend Radius	20D (Dynamic)	10D (Static)
Storage and Operating Temperature	-20°C ~ + 60°C	

Optical Fiber Specification

IEC 60793-2-50 type B1.3/B6

Characteristics	Conditions	Specified Values	Units
Optical Characteristics			
Attenuation	1310 nm	≤0.35	[dB/km]
	1383 nm (after H ₂ -aging)	≤0.35	[dB/km]
	1460 nm	≤0.25	[dB/km]
	1490 nm	≤0.23	[dB/km]
	1550 nm	≤0.21	[dB/km]
	1625 nm	≤0.23	[dB/km]
Attenuation vs. Wavelength	1285 ~ 1330 nm	≤0.03	[dB/km]
Max. α difference	1525 ~ 1575 nm	≤0.02	[dB/km]
Zero dispersion wavelength		1300 ~ 1324	[nm]
Zero dispersion slope		≤0.092	[ps/(nm ² · 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)	1310 nm	8.4 ~ 9.2	[μm]
	1550 nm	9.3 ~ 10.3	[μm]
Effective group index of refraction (N_{eff})	1310 nm	1.466	
	1550 nm	1.467	
Point discontinuities	1310 nm	≤0.05	[dB]
	1550 nm	≤0.05	[dB]
Geometrical Characteristics			
Cladding diameter		125.0 ± 0.7	[μm]
Cladding non-circularity		≤0.7	[%]
Coating diameter		245 ± 5	[μm]
Coating-cladding concentricity error		≤12.0	[μm]
Coating non-circularity		≤6.0	[%]
Core-cladding concentricity error		≤0.5	[μm]
Curl (radius)		≥4	[m]
Delivery length		2.1 to 50.4	[km/reel]
Environmental Characteristics (1310 nm, 1550 nm & 1625 nm)			
Temperature dependence			
Induced attenuation at	-60°C to +85°C	≤0.05	[dB/km]
Temperature-humidity cycling			
Induced attenuation at	-10°C to +85°C, 98% RH	≤0.05	[dB/km]
Watersoak dependence			
Induced attenuation at	23°C, for 30 days	≤0.05	[dB/km]
Damp heat dependence			
Induced attenuation at	85°C and 85% RH, for 30 days	≤0.05	[dB/km]
Dry heat aging at	85°C, for 30 days	≤0.05	[dB/km]
Mechanical Specification			
Proof test		≥9.0	[N]
		≥1.0	[%]
		≥100	[kpsi]
Macro-bend induced attenuation			
10 turns around a mandrel of 15 mm radius	1550 nm	≤0.03	[dB]
10 turns around a mandrel of 15 mm radius	1625 nm	≤0.1	[dB]
1 turn around a mandrel of 10 mm radius	1550 nm	≤0.1	[dB]
1 turn around a mandrel of 10 mm radius	1625 nm	≤0.2	[dB]
1 turn around a mandrel of 7.5 mm radius	1550 nm	≤0.2	[dB]
1 turn around a mandrel of 7.5 mm radius	1625 nm	≤0.5	[dB]
Coating strip force	typical average force peak force	1.5	[N]
		≥1.3 ≤8.9	[N]
Dynamic stress corrosion susceptibility parameter (n_2 , typical)		27	

Exclusively Manufactured by:
Point 2 Point Communications Corp.
sales@p2pcable.com

