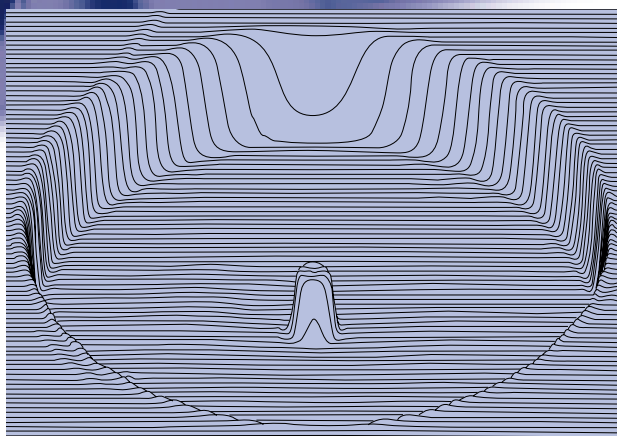




Single Mode Optical Fibre. Type: Matched Cladding / PCVD

Product code: 268
Dual Layer Primary Coating (DLPC8)
Issue date: 11/01
Supersedes: 06/00



Fibre.

This single mode optical fibre, product code 268, is a 1310 nm optimized (non-dispersion shifted) fibre, also suitable for use at 1550 nm.

This optical fibre is especially suitable for high bit-rate, long distance transmission links and analog CATV networks.

The fibre complies with or exceeds the ITU Recommendation G.652B or the IEC 60793-2-50 type B 1.1 Optical Fibre Specification.

Coating.

The single mode fibre is coated with a dual layer UV curable acrylate, type DLPC8. Designed for more stringent tight-buffer cable applications, the fibre also performs perfectly in loose tube buffer constructions and demonstrates a high resistance to microbending.

The coating offers an excellent stable coating strip force over a wide range of environmental conditions and coating stripping leaves no residues on the bare glass fibre.

Profile.

The single mode fibre is of the matched cladding design with a nominal mode field diameter of 9.2 μm . It has a high level of splice compatibility in applications with optical fibres manufactured by other processes (OVD, MCVD, VAD).

Process.

This single mode fibre is manufactured using the Plasma activated Chemical Vapour Deposition (PCVD) process.

Specifications Single Mode Optical Fibre. Type: Matched Cladding / PCVD

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Characteristics	Conditions	Specified Values			Units	
Optical Characteristics						
Attenuation Coefficient	1310 nm	≤ 0.34	≤ 0.36	≤ 0.38	[dB/km]	
	1285 - 1330 nm	≤ 0.36	≤ 0.38	≤ 0.40	[dB/km]	
	1550 nm	≤ 0.19	≤ 0.21	≤ 0.23	[dB/km]	
Mode Field Diameter	1310 nm			9.2 ± 0.4	[µm]	
	1550 nm			10.4 ± 0.8	[µm]	
Fibre Cut-Off Wavelength		≥ 1150	≤ 1330		[nm]	
Cable Cut-Off Wavelength			≤ 1260		[nm]	
Chromatic Dispersion						
Zero-Dispersion Wavelength		≥ 1302	≤ 1322		[nm]	
Zero-Dispersion Slope			≤ 0.091		[ps/(nm ² ·km)]	
Dispersion Coefficient	1285 - 1330 nm		≤ 131		[ps/(nm·km)]	
	1550 nm		≤ 18		[ps/(nm·km)]	
Polarisation Mode Dispersion	1550 nm	Uncabled: ≤ 0.2			[ps/(√km)]	
		Cabled: ≤ 0.5			[ps/(√km)]	
Backscatter Characteristics [1] Step [2] Irregularities over fibre length Difference Backscatter Coefficient Attenuation Uniformity Reflections Group Index of Refraction (Typical)	1310 nm, 1550 nm			≤ 0.05	[dB]	
				≤ 0.05	[dB]	
				≤ 0.03	[dB/km]	
				≤ 0.01	[dB/km]	
				Not allowed		
					1.467	
					1.467	
Geometrical Characteristics						
MFD Non-Circularity			≤ 6		[%]	
MFD / Cladding Concentricity Error			≤ 0.6		[µm]	
Cladding Diameter			125.0 ± 1.0		[µm]	
Cladding Non-Circularity			≤ 1.0		[%]	
Coating Diameter			245 ± 10		[µm]	
Coating Non-Circularity			≤ 6		[%]	
Coating Concentricity Error			≤ 12.5		[µm]	
Length		Standard lengths up to 50.4			[km]	
Environmental Characteristics						
Temperature Dependence Induced Attenuation	1310 nm, 1550 nm					
	-60°C to +85°C		≤ 0.05		[dB/km]	
Temperature and Humidity Cycling Induced Attenuation	1310 nm, 1550 nm					
	-10°C to +85°C, 90% R.H.		≤ 0.05		[dB/km]	
Watersoak Dependence Induced Attenuation	1310 nm, 1550 nm					
	20°C for 30 days		≤ 0.05		[dB/km]	
Damp Heat Dependence Induced Attenuation	1310 nm, 1550 nm					
	85°C, 85% R.H., 30 days		≤ 0.05		[dB/km]	
Mechanical Characteristics						
Proof Test	off line		≥ 8.8		[N]	
			≥ 1.0		[%]	
			≥ 100		[KPSI]	
			≥ 0.7		[GPa]	
Fibre Curl Radius			≥ 4.0		[m]	
Bending Dependence Induced Attenuation	1550 nm					
	100 turns, 60 mm diameter		≤ 0.05		[dB]	
Dynamic Stress Corrosion Susceptibility Parameter			≥ 20			
Coating Strip Force	Typical average force			2	[N]	
	Peak force	≥ 1.3		≤ 8.9	[N]	

1. OTDR measurement with 1 µs pulse width.
2. Mean of bi-directional measurement.