

# ALL SILICA DOUBLE & TRIPLE CLAD FIBER



Passive Double Clad Fibers (SMM900 & SMM1500) are passive, dual cladding, Multimode (MM) fibers that combine both Single-Mode (SM) and MM fiber characteristics within a single fiber.

These fibers have a germano-silicate SM core, a pure silica inner cladding to guide the pump light and a fluorine doped secondary cladding to give outstanding power handling over a full range of environmental conditions. The fiber does not rely on a low index polymer coating, so it can be stripped, cleaved and spliced like a standard telecoms fiber, without the need to apply a low index recoat material.

SMM900 & SMM1500 have been designed specifically to be used in conjunction with Fibercore's Dual Clad Erbium/ Ytterbium Doped Fiber (CP1500Y), Multimode Pump Fiber (MM105) and Isolating Wavelength Division Multiplexer (CP-IWDM). In order to minimize losses throughout the system and maximize efficiency, the optical characteristics of these fibers have been matched for high splice compatibility.

The SMM1500(9/125)HD fiber variant is also available for specialised applications that prefer the addition of the low index acrylate.

## FEATURES

### Advantages

- All silica design
- No low index recoating required (exception SMM1500(9/125)HD)
- Stable in humid environments

### Typical Applications:

- Telecoms
- Erbium Doped Fiber Amplifier (EDFA)
- Cable Television (CATV)
- Fiber lasers
- Biomedical illumination
- Light Detection and Ranging (LiDAR)

### Product Variants

- SMM900  
Double clad passive fiber with SM core and MM pump guide for SM transmission of 9xx nm and 1550 nm
- SMM1500(6/125)  
Double clad passive fiber with SM core and MM pump guide
- SMM1500(6/125)HT  
Double clad passive fiber with SM core and MM pump guide. Coated with high temperature acrylate
- SMM1500(9/125)  
Double clad passive fiber with SM core and MM pump guide
- SMM1500(9/125)HT  
Double clad passive fiber with SM core and MM pump guide. Coated with high temperature acrylate
- SMM1500(9/125)HD  
Triple clad passive fiber with SM core and MM pump guide. Coated with high durability, low index acrylate

To find out more visit [fibercore.com](https://www.fibercore.com)

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# ALL SILICA DOUBLE & TRIPLE CLAD FIBER

## SPECIFICATIONS

	SMM900	SMM1500 (6/125)	SMM1500 (6/125)HT
<b>Single-Mode Core</b>			
Cut-Off Wavelength (nm)	870 - 970	1290 - 1510	
Numerical Aperture	0.18 - 0.20	0.20 - 0.22	
Mode Field Diameter (μm)	6.5 - 8.2 @1550nm	5.6 - 6.5 @1550nm	
Attenuation (dB/km)	4 (nominal) @1550nm	≤4 @1550nm	
Core Cladding Concentricity (μm)	≤0.75	≤0.5	
<b>Pump Guide</b>			
Diameter (μm)	100 - 104	100 - 106	
Numerical Aperture	0.24 - 0.28	0.22 - 0.24	
<b>General</b>			
Cladding Diameter (μm)	125 ± 1		
Proof Test (%)	1 (100 kpsi)		
Coating Diameter (μm)	245 ± 7	245 ± 10	
Coating Type	Dual Layer Acrylate		High Temperature Acrylate
Operating Temperature (°C)	-55 to +85		-55 to +150

## RELATED PRODUCTS

- Dual Clad Erbium/Ytterbium Doped Fiber
- Isolating Wavelength Division Multiplexer
- Large Core Fiber

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# ALL SILICA DOUBLE & TRIPLE CLAD FIBER

## SPECIFICATIONS

	SMM1500 (9/125)	SMM1500 (9/125)HT	SMM1500 (9/125)HD
<b>Single-Mode Core</b>			
Cut-Off Wavelength (nm)	1290 - 1510		
Numerical Aperture	0.125 - 0.155		
Mode Field Diameter (μm)	8.1 - 10.3 @1550nm		
Attenuation (dB/km)	≤1 @1550nm		
Core Cladding Concentricity (μm)	≤0.8		
<b>Pump Guide</b>			
Diameter (μm)	100 - 106		
Numerical Aperture	0.22 - 0.24		
<b>General</b>			
Cladding Diameter (μm)	125 ± 1		
Proof Test (%)	1 (100 kpsi)		
Coating Diameter (μm)	245 ± 10		
Coating Type	Dual layer acrylate	High temperature acrylate	Low index acrylate
Operating Temperature (°C)	-55 to +85	-55 to +150	-55 to +85

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