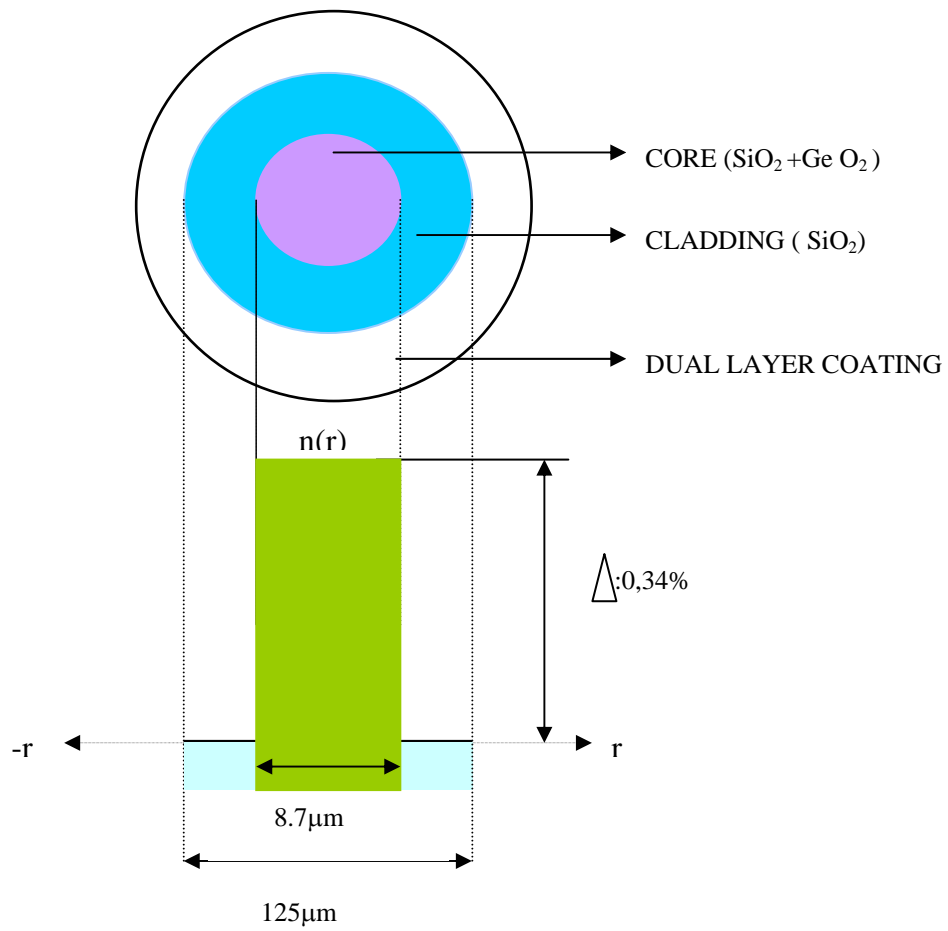


# SINGLE MODE FIBER SPECIFICATIONS

## Single Mode Drawing



## **SINGLE MODE FIBER SPECIFICATIONS**

<b><i>Optical Properties</i></b>	<b><i>Unit</i></b>	<b><i>Specified Values</i></b>	
	nm	1310 nm	1550 nm
Attenuation	dB/km	Max. 0.36	Max. 0.22
Mode Field Diameter $\lambda =$ 1310 nm	$\mu\text{m}$	$(8.6-9.5) \pm 0.7$	
Core/ Cladding Eccentricity Error	$\mu\text{m}$	< 0,8	
Cladding Diameter	$\mu\text{m}$	$125 \pm 1$	
Cladding Ovality	%	< 2	
Cut-Off wave length, $\lambda_c$	Nm	1170 – 1330	
Cut – Off wave length $\lambda_{cc}$ in cable	Nm	< 1260	
Chromatic dispersion	$\text{Ps} / \text{nm.km}$	$\leq 17$	$\leq 3.5$
Zero dispersion wave length $\lambda_0$	Nm	$1300 \leq \leq 1324$	
Zero dispersion slope ( $S_0$ )	$\text{Ps} / ( \text{nm}^2.\text{km} )$	$0.095 \geq$	
Attenuation uniformity – point discontinuity at ( 1310 nm – 1650nm)	dB	$0.1 \geq$	
Macro bending loss ( on 30mm mandrel,100turns)	dB		$\leq 0.1$

### ***Mechanical Properties***

	<b><i>Unit</i></b>	<b><i>Specified Values</i></b>
Proff Test	N	8.4
Proof- test strain, 8.4 N	%	1.00
Storage and transport temperature range	$^{\circ}\text{C}$	- 40 , + 80
Temperature variation of attenuation	dB/km	Max.0.02
Colour Resistance	Rub	Min.100
Optical Fiber shall conform to	ITT-T G.652 IEC793.1	