

FACAB[®] dataline LWL

optical fiber data

Spezifications/standards: ISO/IEC 793, EN 50173, DIN VDE 0888, CCITT G. 651

	Graded index fiber			Single-Mode
	Standard		High-Grade	E9/125 µm
	50/125 µm (OM2)	62,5/125 µm	50/125 µm (OM3)	
Geometrical Data				
Diameter of core	50 ± 3 µm	62,5 ± 3 µm	50 ± 3 µm	
1310 nm				9,2 ± 0,4 µm
1550 nm				10,5 ± 1,0 µm
Diameter of cladding	125 ± 3 µm	125 ± 3 µm	125 ± 3 µm	125 ± 1 µm
Diameter of primary coating	245 ± 10 µm	245 ± 10 µm	245 ± 10 µm	245 ± 5 µm
Non-circularity of core	< 6 %	< 6 %	< 6 %	
Non-circularity of fiber	< 2 %	< 2 %	< 2 %	
excentricity between core and cladding	< 3 µm	< 3 µm	< 1,5 µm	
Optical Data				
Attenuation				
850 nm	< 3,0 dB/km	< 3,5 dB/km	< 2,7 dB/km	
1300 nm	< 1,0 dB/km	< 1,0 dB/km	< 0,7 dB/km	
1310 nm				< 0,36 dB/km
1550 nm				< 0,25 dB/km
Dispersion parameter				
1310 nm				< 3,5 ps/(nm x km)
1550 nm				< 18,0 ps/(nm x km)
Bandwidth				
850 nm	> 500 MHz x km	> 200 MHz x km	> 1500 MHz x km	
1300 nm	> 500 MHz x km	> 500 MHz x km	> 500 MHz x km	
Link length at 1 GBit/s				
850 nm	600 m	300 m	900 m	
1300 nm	600 m	550 m	500 m	
Link length at 10 GBit/s				
850 nm			300 m	
1300 nm			300 m	
Refractive index				
850 nm	1,482	1,496	1,482	
1300 nm	1,477	1,491	1,477	1,468
1550 nm				1,468
Numerical aperture	0,200 ± 0,02	0,275 ± 0,02	0,200 ± 0,015	
Cut off wave length				< 1250 nm
Coefficient of polarization mode dispersion (PMD)				< 0,5