



Properties of used optical fibres:

Single -mode fibres SM - E9/125		ITU – T G.652D standard	ITU – T G.655 With non– zero dispersion
Mode field diameter at 1310 nm at 1550 nm	[μm] [μm]	9,2 ± 0,4 10,4 ± 0,5	- 9,6 ± 0,4
Cladding diameter	[μm]	125 ± 0,7	125 ± 0,7
Fibre diameter (coloured)	[μm]	255 ± 10	255 ± 10
Attenuation at 1310 nm at 1383 nm at 1550 nm at 1625 nm	[dB/km] [dB/km] [dB/km] [dB/km]	≤ 0,36 ≤ 0,31 ≤ 0,21 ≤ 0,23	- - ≤ 0,22 ≤ 0,24
Chromatic dispersion (D) at 1285 – 1330 nm at 1550 nm at 1625 nm	[ps/(nm.km)] [ps/(nm.km)] [ps/(nm.km)]	≤ 3,5 ≤ 18 ≤ 22	- 2,80 ≤ D ≤ 6,20 5,77 ≤ D ≤ 11,26
Polarization mode dispersion (PMD) coefficient	[ps/ $\sqrt{\text{km}}$]	≤ 0,2	≤ 0,1

Multimode gradient fibres		ITU – T G.651 MM – G50/125 (OM2)	ITU – T G.651 MM – G62,5/125 (OM1)
Core diameter	[μm]	50 ± 2	62,5 ± 2
Cladding diameter	[μm]	125 ± 1,0	125 ± 1,0
Fibre diameter	[μm]	242 ± 5	242 ± 5
Attenuation at 850 nm at 1300 nm	[dB/km] [dB/km]	≤ 3,0 ≤ 0,9	≤ 3,2 ≤ 1,0
Bandwidth at 850 nm at 1300 nm	[MHz.km] [MHz.km]	≥ 300 ≥ 600	≥ 160 ≥ 500
Numerical aperture		0,200 ± 0,015	0,275 ± 0,015

4. OPTICAL CABLES / Properties of used optical fibres



Colour marking acc.to IEC 304:

Tubes*		Fibres	
number	colour	number	colour
1	red	1	red
2	white	2	green
3 – 8	yellow (E9/125)	3	blue
	green (G50/125)	4	yellow
	blue (G62,5/125)	5	white
		6	grey
		7	brown
		8	purple
		9	turquoise
		10	black
		11	orange
		12	pink

*other colours upon request