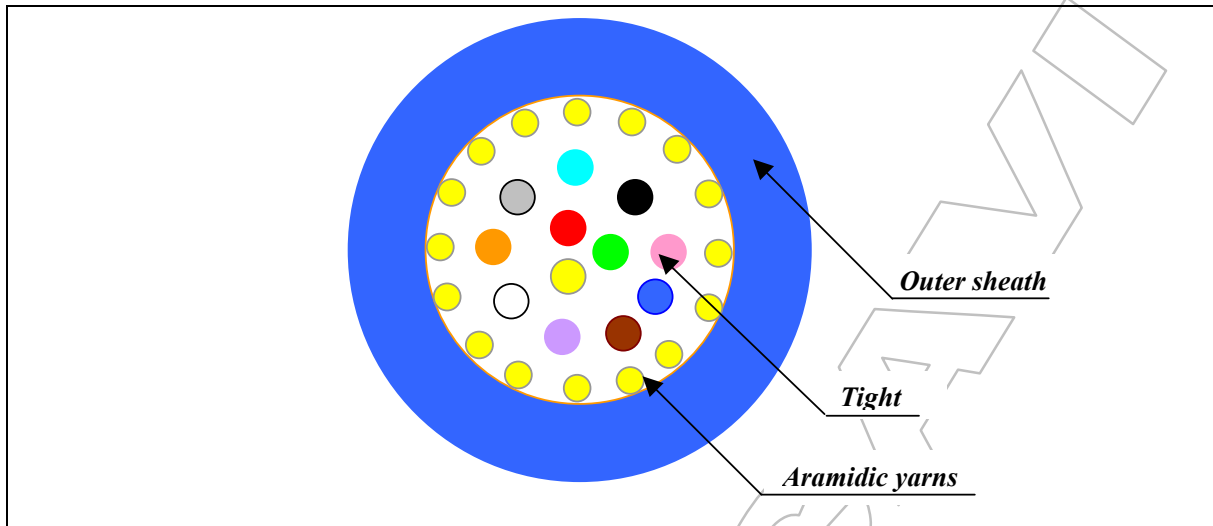


INDOOR/OUTDOOR OPTICAL CABLE - TIGHT



OPTICAL CORE

• Buffered tight:	Coloured TIGHT External Ø 0,9 mm			
• Standard colour code of tight:	1 – White 2 – Red 3 – Green 4 – Yellow 5 – Brown 6 – Blue	7 – Violet 8 – Orange 9 – Grey 10 – Black 11 – Pink 12 – Turquoise	13 – Light Brown 14 – Red / Black 15 – Green / Black 16 – Yellow / Black 17 – Brown / Black 18 – Blue / Black	19 – Violet / Black 20 – Orange / Black 21 – Grey / Black 22 – White / Black 23 – Pink / Black 24 – Turquoise / Black
• Assembling:	n° tights assembled			
• Protection:	Aramidic yarns --- (Waterblocking elements will be added on customer request)			
• Outer sheath: (standard colours)	- Indoor cable: Orange LSZH jacket - (see table 1)		- Indoor/Outdoor cable: Blue LSZH UV-R jacket - (see table 1)	
• Marking : (LSZH version only)	PLASTICAVI - BELCONN - month/year - OPTICAL CABLE n O.F. (fiber type)/KM - LSZH IEC 60332-3C + metric			
• Marking : (LSZH UV-R version only)	PLASTICAVI - BELCONN - month/year - OPTICAL CABLE n O.F. (fiber type)/KM - LSZH UV-R IEC 60332-3C + metric			
• Marking : (LSZH UV-R with waterblocking elements version only)	PLASTICAVI - BELCONN - month/year - OPTICAL CABLE n O.F. (fiber type)/K1M - LSZH UV-R IEC 60332-3C + metric			

N° of fibers	Table 1		
	Outer Sheath		Physical Characteristics
	Nominal Thickness	Nominal Diameter	Nominal weight
2	1,0mm	4,0mm	17kg/km
4	1,2mm	5,2mm	28kg/km
6	1,2mm	6,0mm	34kg/km
8	1,2mm	6,2mm	37kg/km
12	1,2mm	6,7mm	43kg/km
16	1,2mm	7,7mm	52kg/km
18	1,2mm	8,0mm	55kg/km
24	1,2mm	8,5mm	65kg/km

INDOOR/OUTDOOR OPTICAL CABLE - TIGHT

PHYSICAL CHARACTERISTICS

• Min. Bending Radius:	- Dynamic: 15 x cable outer diameter	- Static: 10 x cable outer diameter
• Storage Temperature:	-40°C ÷ +70°C	
• Operating Temperature:	-40°C ÷ +60°C	
• Installation Temperature:	-15°C ÷ +60°C	

FIRE PERFORMANCES

• Flame retardant:	IEC 60332-1
• Fire retardant:	IEC 60332.3C
• Low smoke opacity:	IEC 1034 1/2
• Halogen free:	IEC 754-1/2

MECHANICAL TESTS

• Tensile performance:	N° of fibres		➤ Δα reversible	IEC 60794-1-2-E1 EN 187000-501
	2	300N		
	4	400N		
	6	400N		
	8	400N		
	12	400N		
	16	600N		
	18	600N		
24	600N			
• Crush:	N° of fibres		➤ Δα reversible	IEC 60794-1-2-E3 EN 187000-504
	2	1000N/10cm		
	4	2000N/10cm		
	6	2000N/10cm		
	8	2000N/10cm		
	12	2000N/10cm		
	16	3000N/10cm		
	18	3000N/10cm		
24	3000N/10cm			
• Impact:	N° of fibres		➤ Δα reversible ➤ No outer sheath breakage	IEC 60794-1-2-E3 EN 187000-504
	2	3J, 3impacts in different places		
	4	5J, 3impacts in different places		
	6	5J, 3impacts in different places		
	8	5J, 3impacts in different places		
	12	5J, 3impacts in different places		
	16	5J, 3impacts in different places		
	18	5J, 3impacts in different places		
24	5J, 3impacts in different places			
• Water penetration (*):	- 3m cable, 1m water, 24h		➤ No water leakage	IEC 60794-1-F5-B EN 187000-605-B

(*): On customer requirement only

INDOOR/OUTDOOR OPTICAL CABLE - TIGHT

FIBRES PROPERTIES

Multimode fibre 62,5/125/250 µm	Fibre type: MM62,5
Standard reference:	IEC 60793-2
Core diameter:	62,5±2,5 µm
Core non-circularity:	5 % Max
Cladding diameter:	125±2 µm
Cladding non-circularity:	1 % Max
Coating diameter:	245±10 µm
Core/Cladding concentricity error:	≤1,5 µm
Numerical aperture:	0,275±0,015
Attenuation @ 850 nm	≤ 3,5 dB/km
Attenuation @ 1300 nm	≤ 1,0 dB/km
Bandwidth @ 850 nm	≥ 200 MHz*km
Bandwidth @ 1300 nm	≥ 500 MHz*km

Multimode fibre 50/125/250 µm	Fibre type: MM50
Standard reference:	ITU-T: G651
Core diameter:	50,0±2,5 µm
Core non-circularity:	5 % Max
Cladding diameter:	125±2 µm
Cladding non-circularity:	1 % Max
Coating diameter:	245±10 µm
Core/Cladding concentricity error:	≤1,5 µm
Numerical aperture:	0,200±0,015
Attenuation @ 850 nm	≤ 2,8 dB/km
Attenuation @ 1300 nm	≤ 0,8 dB/km
Bandwidth @ 850 nm	≥ 500 MHz*km
Bandwidth @ 1300 nm	≥ 500 MHz*km

Multimode fibre 50/125/250 µm	Fibre type: OM3
Standard reference:	ISO/IEC 11801
Core diameter:	50,0±2,5 µm
Core non-circularity:	5 % Max
Cladding diameter:	125±2 µm
Cladding non-circularity:	1 % Max
Coating diameter:	245±10 µm
Core/Cladding concentricity error:	≤1,5 µm
Numerical aperture:	0,200±0,015
Attenuation @ 850 nm	≤ 2,8 dB/km
Attenuation @ 1300 nm	≤ 0,8 dB/km
Bandwidth @ 850 nm	≥ 1500 MHz*km
Bandwidth @ 1300 nm	≥ 500 MHz*km
Bandwidth @ 850 nm (ELL)	≥ 2000 MHz*km

INDOOR/OUTDOOR OPTICAL CABLE - TIGHT

Singlemode fibre 9,6/125/250 μm	Fibre type: SMR
Standard Reference :	ITU-T: G652.B
Mode field diameter @1310 nm:	9,2 \pm 0,4 μm
Cladding diameter:	125 \pm 1 μm
Cladding non-circularity:	1 % Max
Coating diameter:	245 \pm 10 μm
Core/Cladding concentricity error:	\leq 0,5 μm
Cladding/Coating concentricity error:	\leq 12,0 μm
Cut off wavelength:	\leq 1260 nm
Attenuation @ 1310 nm	\leq 0,38 dB/km
Attenuation @ 1550 nm	\leq 0,25 dB/km
Zero dispersion wavelength (λ_0):	1302 – 1322 nm
Dispersion slope (S_0) @ (λ_0)	\leq 0.090 ps/nm ² *km
Chromatic dispersion @ 1285 – 1330 nm	\leq 3,5 ps/nm*km
Chromatic dispersion @ 1550 nm	\leq 18,0 ps/nm*km

Singlemode Low Water Peak fibres 9,6/125/250 μm	Fibre type: SMR LWP
Standard Reference :	ITU-T: G652.D
Mode field diameter @1310 nm:	9,2 \pm 0,4 μm
Cladding diameter:	125,0 \pm 0,7 μm
Cladding non-circularity:	1 % Max
Coating diameter:	245 \pm 5 μm
Core/Cladding concentricity error:	\leq 0,5 μm
Cladding/Coating concentricity error:	\leq 12,0 μm
Cut off wavelength:	\leq 1260 nm
Attenuation @ 1310 nm	\leq 0,35 dB/km
Attenuation @ 1383 nm	\leq 0,33 dB/km
Attenuation @ 1550 nm	\leq 0,25 dB/km
Attenuation @ 1625 nm	\leq 0,28 dB/km
Zero dispersion wavelength (λ_0):	1302 – 1322 nm
Dispersion slope (S_0) @ (λ_0)	\leq 0.090 ps/nm ² *km
Chromatic dispersion @ 1285 – 1330 nm	\leq 3,5 ps/nm*km
Chromatic dispersion @ 1550 nm	\leq 18,0 ps/nm*km

Non-zero dispersion	Fibre type: NZDF
Standard Reference :	ITU-T: G655
Mode field diameter @1550 nm:	9,2 \pm 0,5 μm
Cladding diameter:	125 \pm 1 μm
Cladding non-circularity:	1 % Max
Coating diameter:	245 \pm 10 μm
Core/Cladding concentricity error:	\leq 0,5 μm
Cladding/Coating concentricity error:	\leq 12,0 μm
Cut off wavelength:	\leq 1450 nm
Attenuation @ 1550 nm	\leq 0,25 dB/km
Attenuation @ 1625 nm	\leq 0,28 dB/km
Chromatic dispersion @ 1530 – 1565 nm	5,5 to 10,0 ps/nm*km
Chromatic dispersion @ 1565 – 1625 nm	7,5 to 13,0 ps/nm*km
PDM @1550 nm	\leq 0,20 ps/?km