



Not to scale

Cable Construction												
- Number of fibers	12	24	36	48	60	72	84	96	108	120	132	144
- Number of loose tubes x Number of fibers per tube	6x12			8x12			10x12			12x12		
- Central strength member												
- Diameter (mm)	2,4 ± 0,05			3,0 ± 0,05			3,5 ± 0,05					
- Material	FRP											
- CSM Oversheathing diameter (mm)	---			3,9 ± 3%			5,5 ± 3%			7,1 ± 3%		
- Loose tube												
-Material	PBT											
-Diameter (mm)	2.3 ± 3%											
-Type of filling compound	Thixotropic jelly											
- Filler (if required)												
-Material	PE											
- Core wrapping												
-Material	Water blocking tape											
- Outer Sheath												
- Material	MDPE											
- Thickness (mm)	1,3 (nominal)											
- Cable diameter (mm)	10,0 ± 0,2			11,5±0,2			13,1±0,2			14,7±0,2		
- Cable weight (approx.) (kg/km)	75			105			135			165		

- Mechanical characteristics		(All optical measurements at 1550 nm)				
Test	Test Standard	Specified Value				Acceptance Criteria
- Max. Tensile Force Installation Operation	IEC 60794-1-2-E1	12 F to 72 F	84 F & 96 F	108 F & 120 F	132 F & 144 F	$\Delta\alpha$ reversible $\Delta\alpha = <0,05$ dB
		1500 N	2000 N	3000 N	3500 N	
		900 N	1000 N	1500 N	2000 N	
- Cable Bend	IEC 60794-1-2-E11	R= 20 x D, 4 turns, 3 cycles				$\Delta\alpha = <0,05$ dB, no damage
- Impact	IEC 60794-1-2-E4	3 Nm, 3 impacts at different points, R= 10 mm,				$\Delta\alpha = <0,05$ dB, no damage on tubes
- Repeated bending	IEC 60794-1-2-E6	R= 20 x D, 20 N load, 30 cycles, t \leq 2 min/10 cycles				No damage
- Crush Resistance	IEC 60794-1-2-E3	Max. 2000 N/100 mm.				$\Delta\alpha = <0,05$ dB, no damage

- Environmental Characteristics			
Test	Test Standard	Specified Value	Acceptance Criteria
- Water penetration	IEC 60794-1-2-F5B	3 meter specimen, 1 m water altitude	No leaked from the opposite end of the cable in 24 hours.
- Temperature cycling	IEC 60794-1-2-F1	-30 to + 70 °C	$\Delta\alpha = <0,05$ dB/km at 1550 nm

- Identification	
- Cable Marking	1m \pm 1% Intervals in white color with hot print.
- Identification of cable ¹	<number of fibers> F <fiber type> CENKABLO <year of manufacture> <length marking in meter>
- Color of filler	Black
- Color of loose tube ²	1.Red, 2.Green, Others: Natural
- Color of fibers	1. Red, 2.Green, 3.Yellow, 4.Blue, 5.White, 6.Violet, 7. Orange, 8. Black, 9. Grey, 10. Brown, 11. Pink, 12. Turquoise
- Color of outer sheath	Black

¹This inscription is standard imprint. It can be change according to request.

²The other tube and fiber colors are optional.

- Delivery Information			
-Number of fibers	12 to 72	84 to 120	132 to 144
- Drum length/Tolerance ³ (m)	2000 \pm 5%		
- Drum Flange diameter ³ (mm)	1000	1100	1200
- Drum core diameter ³ (mm)	500	580	
- Outside width ³ (mm)	780		
- Central hole diameter (mm)	85		

³Drum dimensions can change depends on cable length on a drum. Standard delivery length is 2 km. Other lengths are optional.

- Transmission characteristics
-Refer to fiber data