



Cable Construction	
- Number of fibers	12
- Number of loose tubes	1 central tube
- Number of fibers per tube	12
- Loose Tubes	
- Material	PC+PBT
- Outer Diameter	2,8 mm \pm 3%
- Type of filling compound	Thixotropic jelly
- Peripheral strength member	
- Material	Water swellable Aramid yarn
- Outer Sheath	
- Material	HDPE
- Thickness	0.7 mm (nominal) \pm 0,1
- Cable diameter	4,5 mm \pm 0,1
- Cable weight	17 kg/km

- <u>Mechanical characteristics</u>		(All optical measurements at 1550 nm)	
Test	Test Standard	Specified Value	Acceptance Criteria
- Tensile Force Installation Operation	IEC 60794-1-2-E1	500 N 350 N	$\epsilon_i \leq 0,5\%$, $\Delta\alpha \leq 0,1$ dB but reversible to 0,05 dB $\epsilon_i \leq 0,33\%$, $\Delta\alpha \leq 0,05$ dB
- Crush Resistance	IEC 60794-1-2-E3	Number of positions where the load shall be applied : 3, Force applied: 1000 N/100 mm.	$\Delta\alpha \leq 0,05$ dB, no damage
- Impact	IEC 60794-1-2-E4	One impact in 3 different places t Impact energy E=3J	$\Delta\alpha \leq 0,05$ dB, no damage
- Repeated bending	IEC 60794-1-2-E6	Cable length L \geq 1 m, Radius r=15*d but \geq 250 mm (d=cable diameter) 50 N load, 100 cycles,	No damage
- Torsion	IEC 60794-1-2-E7	Length under test= 1 m, Number of turns/cycle= \pm 1, Number of cycles= 5, Load 100 N	$\Delta\alpha \leq 0,1$ dB, no damage There shall be no permanent change in attenuation after the test.
- Bend	IEC 60794-1-2-E11	Radius r=15*d but \geq 250 mm (d=cable diameter), Number of turns/helix=5, Number of cycles=3	$\Delta\alpha \leq 0,05$ dB, no damage

- Environmental Characteristics		(All optical measurements at 1550 nm)	
Test	Test Standard	Specified Value	Acceptance Criteria
- Temperature cycling	IEC 60794-1-2-F1	Operating -20 °C to + 60 °C, storage - 25 °C to + 70 °C, Number of cycles: N ≥ 2, Cable length: ≥ 1 km	Operation: $\Delta\alpha \leq 0,05$ dB/km Storage: $\Delta\alpha \leq 0,1$ dB/km but reversible to 0,05 dB/km
- Water penetration	IEC 60794-1-2-F5B	3 meter specimen, 1 m water altitude	No leaked from the opposite end of the cable in 2 days.

- Identification	
- Cable Marking	1m ±1% Intervals in black color with ink-jet print.
- Identification of cable	CENKABLO <year of manufacturing> MINI <number of fibers> F <fibre type> <length marking in meter>
- Color of outer sheath ¹	Black
- Color of loose tube	Natural
- Color of fibers	1.Red, 2.Green, 3.Blue, 4.Yellow, 5.White, 6.Grey, 7.Brown, 8.Violet, 9.Turquoise, 10.Black, 11.Orange, 12.Pink,

¹Other colors are optional.

- Delivery Information	
- Drum length/Tolerance ²	4000 m ± 5%
- Drum Flange diameter ²	800 mm
- Drum core diameter ²	400 mm
- Outside width ²	600 mm
- Central hole diameter	85 mm

² Drum dimensions can change depends on cable length on a drum. Other drum lengths are available.

- Transmission characteristics	
- Refer to fiber data	