



Not to scale

Cable Construction		
- Number of fibers	12	24
- Number of loose tubes x Number of fibers per tube	1x12	2x12
- Loose Tubes		
- Material	PBT	
- Outer Diameter	2.90 mm ± 3%	
- Type of water resistive filling compound	Thixotropic jelly	
- Filler (if required)		
-Material	PE	
- Number of copper cable	2	
- Type of copper cable	H07V-K 1x1,5 mm ² 450/750V	
- Central Strength Member		
- Material	GFRP	
- Diameter	1,60 ± 0.07 mm	
- Core flooding compound		
- Material	Petroleum gel	
- Core wrapping		
- Material	Polyester tape	
- Peripheral strength member		
- Material	Glass yarn	
- Outer Sheath		
- Material	MDPE	
- Thickness (Nominal)	1,5 ± 0,2 mm	
- Cable diameter	11,0 ± 0,2 mm	
- Cable weight (approx.)	130 kg/km	

- Mechanical characteristics			(All optical measurements at 1550 nm)
Test	Test Standard	Specified Value	Acceptance Criteria
- Tensile Force Long Term Short Term	IEC 60794-1-2-E1	Max. 1500 N Max. 2700 N	$\Delta\alpha \leq 0,05$ dB, 60 sec. $\Delta\alpha$ reversible
- Crush Resistance	IEC 60794-1-2-E3	Max. 2000 N/100 mm.	$\Delta\alpha \leq 0,05$ dB, no damage
- Impact	IEC 60794-1-2-E4	5 Nm, 3 impacts at different points, R= 10 mm,	$\Delta\alpha \leq 0,05$ dB after the test, No damage on tubes
- Cable Bend	IEC 60794-1-2-E11	R= 20 x D, 4 turns, 3 cycles	$\Delta\alpha \leq 0,05$ dB, no damage
- Repeated bending	IEC 60794-1-2-E6	R= 15 x D, 100 N load, 20 cycles	No fiber breaks occurring

- Environmental Characteristics			
Test	Test Standard	Specified Value	Acceptance Criteria
- Temperature cycling	IEC 60794-1-2-F1	Operating -30 °C to + 70 °C Installation -5 °C to + 50 °C Storage -40 °C to + 70 °C	$\Delta\alpha \leq 0,05$ dB/km at 1550 nm No attenuation increase $\Delta\alpha \leq 0,1$ 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 (if required)	Black
- Color of loose tubes ²	1-Blue, 2-Orange
- Color of fibers ²	1-Blue, 2-Orange, 3-Green, 4-Brown, 5-Grey, 6-White 7-Red, 8-Black, 9-Yellow, 10-Violet, 11-Pink, 12-Turquoise
- Color of Cu cables	1-Red, 2-Black
- Color of outer sheath ²	Black

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

² The other tube, fiber and sheath colors are optional.

- Delivery Information	
- Drum length/Tolerance ³	2000 m \pm 5%
- Drum Flange diameter ³	1000 mm
- Drum core diameter ³	500 mm
- Outside width ³	780 mm
- Central hole diameter	85 mm

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

- Transmission characteristics
-Refer to fiber data

COPPER WIRE CHARACTERISTICS

STANDARD NO : TS 9758 HD 21.3 S3
CABLE TYPE : H07V-K 1x1,5 mm² 450/750V

TESTS (PHYSICAL AND MECANICAL)	STANDART SPECT.
Conductor Resistance	TS 6570 HD 383 S2 (max.13,3 Ω/km)
Voltage Test to Completed Cable (2000V)	TS 9756 HD 21,1 S4
Insulation Resistance on Completed Cable	TS 9756 HD 21.1 S4 TS 9758 HD 21.5 S3 (min 0,01 M Ωxkm)
Conformity of Construction Condition	VISUAL
Measurement of Insulation Thickness	TS 9758 HD 21.3S3 (0.7 mm)
Measurement of Out Thickness	TS 9758 HD 21.3S3 (2.8-3.4 mm)
Elongation Test Before Ageing (Insulation)	TS 9756 HD 21.1 S4 Table 1 (%125, 12,5 N/mm ²)
Elongation Test After Ageing (Insulation)	TS 9756 HD 21.1 S4 Table 1 (%125, 12,5 N/mm ²)
Resistance Against Expansion of Flame	TS EN 50265-2-1