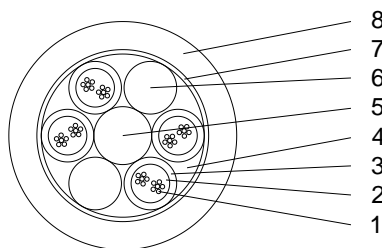


NON-METALLIC DUCT CABLE FZORMU-SD



1. Optical fibres	2. Jelly filling	3. Tube	4. Dry core
5. FRP rod	6. Filler	7. Strength members	8. Sheath

Application	Rodent protected non-metallic optical fibre cable for duct installation either by pulling or blowing.	
Construction	Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.
	Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.
	Fillers	Plastic fillers when applicable.
	Central strength member	Glass fibre reinforced plastic (FRP).
	Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member. 192 and 288F cables are stranded in two layers.
	Water blocking	Dry water blocking elements are applied to the cable core.
	Strength members	A layer of E-glass yarns under the sheath for tensile strength and rodent protection.
	Rip cord	A non-metallic rip cord is applied under the sheath.
Standard references	Outer sheath	UV resistant black polyethylene compound (HDPE). Minimum sheath thickness is 1,2 mm for up to 192F and 1,5 mm for 288F cable.
	Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking
	Cable properties	IEC 60794-3-11
	Test methods	IEC 60794-1-2x
	Halogen free	IEC 60754-2

Maximum cabled fibre attenuation					
Wavelength	1310	1383	1550	1625	nm
Attenuation	0,36	0,36	0,22	0,24	dB/km

Nominal dimensions						
Fibres		Diameter [mm]		Weight [kg/km]	Minimum bending radius [mm]	
Count	Grouping	Loose tube	Cable	Cable	Dynamic	Static
12	1×12	2,1	9,0	64	180	90
24	2×12	2,1	9,0	65	180	90
48	4×12	2,1	9,0	65	180	90
96	8×12	2,1	10,7	100	220	110
144	12×12	2,1	13,7	150	280	140
192	16×12	2,1	14,0	151	280	140
288	24×12	2,1	16,9	217	280	140

Cable core lay up			
Fibres	Tubes	Fillers	Colour of the tubes
12	1	4	blue
24	2	3	blue, orange
48	4	1	blue, orange, green, brown
96	8	0	blue, orange, green, brown, grey, white, red, black
144	12	0	blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise
192	4	2	<i>First layer:</i> blue, orange, green, brown
	12	0	<i>Second layer:</i> grey, white, red, black, yellow, violet, pink, turquoise, blue/black, orange/black, green/black, brown/black
288	9	0	<i>First layer:</i> blue, orange, green, brown, grey, white, red, black, yellow
	15	0	<i>Second layer:</i> violet, pink, turquoise, blue/black, orange/black, green/black, brown/black, grey/black, white/black, red/black, black/black, yellow/black, violet/black, pink/black, turquoise/black
Colour of the fibres			blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise
Colour of the fillers			black or natural
Colour coding standard			ANSI/EIA/TIA 598-C

Cable characteristics			
Max. tension	Installation, fibre elongation $\leq 0.33\%$.	Fibre count	Tension
		12 – 48	3500 N
		96 - 192	5900 N
	Operation, fibre elongation $\leq 0.05\%$.	288	6800 N
		Fibre count	Tension
		12 – 48	2300 N
Crush strength	With 100 mm plate, no change (≥ 0.05 dB) in attenuation after test.	3000 N	
	With 100 mm plate, no change (≥ 0.05 dB) in attenuation during test.	2000 N	
Bending radius	- During installation (dynamic)	20 x Diameter	
	- Final installation (static)	10 x Diameter	
Impact	- Energy	15 J, one impact	
Torsion	- Number of turns	± 1 , (length 1000 mm)	
Temperature range	- Operation, storage, transport	-45 to +70 °C	
	- Installation	-15 to +70 °C	
Water penetration		< 3 m, 24 h	

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