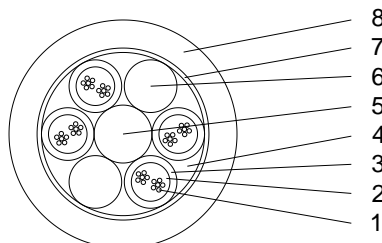


## OUTDOOR-INDOOR CABLE FZOMSU-SD



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

**Application** Universal non-metallic optical fibre cable for both indoor and outdoor applications (duct installation).

**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). When applicable coated with PE to increase the diameter.
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Wrapping	The cable core is wrapped longitudinally with a water blocking tape.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is orange. Minimum sheath thickness is 1.2 mm. Nominal sheath thickness is 1,4 mm. Cable is flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking

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	During installation	Installed
6	1x6	2,1	10,0	80	200	100
12	1x12	2,1	10,0	80	200	100
24	2x12	2,1	10,0	80	200	100
48	4x12	2,1	10,0	82	200	100
96	8x12	2,1	11,2	105	220	110
192	8x2x12	3,0	14,9	174	300	150

Cable core lay-up 6F						
Fibres	Tubes	Fillers	Colour of the tubes	Fibres / tube	Group yarns	Colour of the fibres
6	1	5	blue	6	-	blue, white, yellow, green, grey, red or orange

Cable core lay-up 12-192F						
Fibres	Tubes	Fillers	Colour of the tubes	Fibres / tube	Group yarns	Colour of the fibres
12	1	5	blue	12	-	blue, white, yellow, green, grey, orange, brown, aqua, black, violet, pink, red
24	2	4	blue, white	12	-	blue, white, yellow, green, grey, orange, brown, aqua, black, violet, pink, red
48	4	2	blue, white, yellow, green	12	-	blue, white, yellow, green, grey, orange, brown, aqua, black, violet, pink, red
96	8	0	blue, white, yellow, green, grey, orange, brown, aqua	12	-	blue, white, yellow, green, grey, orange, brown, aqua, black, violet, pink, red
192	8	0	blue, white, yellow, green, grey, orange, brown, aqua	24	blue, white	blue, white, yellow, green, grey, orange, brown, aqua, black, violet, pink, red
Colour of the fillers is black or natural.						
Colour coding standard				FIN2012		

<b>Mechanical characteristics (IEC60794-1-2)</b>		
Max. tension	-Fibre elongation $\leq 0.33\%$ , no change ( $\geq 0,05$ dB) in attenuation after the test.	12 – 48 fibres: 1800 N 96 – 192 fibres: 2800 N
Crush strength	-100 mm plate, during operation. No change ( $\geq 0,05$ dB) in attenuation during the test.	1500 N
	-100 mm plate, during installation. No change ( $\geq 0.05$ dB) in attenuation after test	3000 N
	-25 mm mandrel, during installation. No change ( $\geq 0.05$ dB) in attenuation after test	500 N
Bending radius	-During installation	20 x Diameter
	-Final installation	10 x Diameter
Impact	-Energy	20 J, one impact
Torsion	-Number of turns	$\pm 1$ , (length 1000 mm)
Temperature range	-Operation, storage, transport	-45 to +60 °C
	-Installation	-15 to +60 °C
Water penetration		< 3 m, 24 h

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