

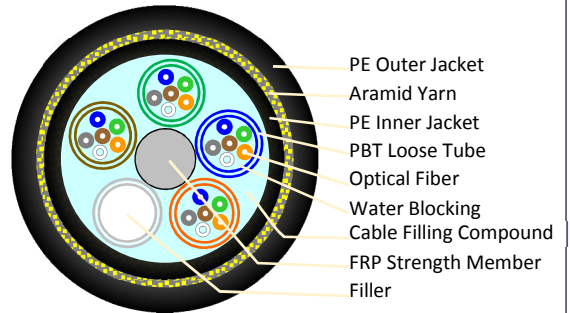


## Indoor/Outdoor Non-Metallic Double Jacket Fiber Optic Cable

### NMA Series

#### Description

The fiber, either single mode or multimode type, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a waterresistant filling compound. A Fiber Reinforced Plastic (FRP) locates in the center of the core as a non-metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. The cable core is filled with filling compound and covered with a thin layer of Polyethylene (PE) inner sheath. A layer of Aramid yarn is applied around the cable core as additional strength member. The cable is completed with a Polyethylene (PE) or Fire Retardant LSZH sheath.



#### Application

This cable is suitable for Indoor or Outdoor Direct Burial, Tunnel and Duct environment for metropolitan network and access network, where metallic element is not allowed. The PE Sheath provides UV and Chemical/Oil resistance.

#### Standards

TIA/EIA 568-C, ISO 11801, IEEE 802.3, ITU Recommendations

#### Characteristics

- Accurate fiber excess length ensures good mechanical and temperature performance
- High strength loose tube that is hydrolysis resistant and filling compound ensure a critical protection of fiber
- Specially designed compact structure is good at preventing loose tube from shrinking
- Crush resistance and flexibility
- Single Fiber Reinforced Plastic used as the central strength member
- Loose tubes are filled with filling compound to ensures tubes are watertight.
- 100% cable core filling ensures cable is watertight

#### Cable Properties

Fiber Count	No. of Tubes	No. of Fillers	Cable Diameter, mm	Cable Weight, kg/km
2 ~ 6	1	5	10.7	~ 90
12	2	4	10.7	~ 90
24	4	1	10.5	~ 90
48	4	2	10.5	~ 112
96	8	0	13.9	~ 167
144	12	0	17.4	~ 252



### Physical Characteristics

<b>Outer Sheath Thickness, mm</b>		nominal 1.0
<b>Inner Sheath Thickness, mm</b>		nominal 1.0
<b>FRP Diameter, mm</b>		2.25
<b>Loose Tube Diameter, mm</b>		2.1
<b>Tensile Strength, N</b>	<b>Long Term</b>	600 (1000 for 144core)
	<b>Short Term</b>	1500 (3000 for 144core)
<b>Crush Resistance, N/100 mm</b>	<b>Long Term</b>	300
	<b>Short Term</b>	1000
<b>Operating Temperature</b>		-40°C to +70°C
<b>Operating Temperature</b>		-40°C to +70°C

### Fibers Colour

Fiber No.	1	2	3	4	5	6	7	8	9	10	11	12
<b>Colour</b>	Blue	Orange	Green	Brown	Grey	Natural	Red	Black	Yellow	Violet	Pink	Aqua

### Loose Tubes Colour

Fiber No.	1	2	3	4	5	6	7	8	9	10	11	12
<b>Colour</b>	Blue	Orange	Green	Brown	Grey	Natural	Red	Black	Yellow	Violet	Pink	Aqua

No. of Fiber	Part Number	Description
	306-NMA7xx-a000	For fiber below 96 core
12	306-NMA712-a000	12core 9/125 µm Single Mode Indoor/Outdoor Non-Metallic Double Jacket Fiber Optic Cable
	306-NMA700-a000-0xxx	For fiber above 100 core
144	306-NMA700-a000-0144	144core 9/125 µm Single Mode Indoor/Outdoor Non-Metallic Double Jacket Fiber Optic Cable

- Substitute **xx** : Number of fiber core
- Substitute 306-NMA7, with 4XG-NMA5 for OM4, 3XG-NMA5 for OM3, 306-NMA5 for OM2, 306-NMA6 for OM1
- Available in LSZH Jacket

\* -a000, a = production code, subjected to change upon shipping



### Optical Properties

		SM G.652.D	OM4 50/125 $\mu\text{m}$	OM3 50/125 $\mu\text{m}$	OM2 50/125 $\mu\text{m}$	OM1 62.5/125 $\mu\text{m}$
Attenuation (+ 20 °C)	@ 850 nm	-	$\leq 3.0$ dB/km	$\leq 3.0$ dB/km	$\leq 3.0$ dB/km	$\leq 3.0$ dB/km
	@ 1300 nm	-	$\leq 1.0$ dB/km	$\leq 1.0$ dB/km	$\leq 1.0$ dB/km	$\leq 1.0$ dB/km
	@1310 nm	$\leq 0.36$ dB/km	-	-	-	-
	@1550 nm	$\leq 0.22$ dB/km	-	-	-	-
Bandwidth (Class B)	@ 850 nm	-	$\geq 3500$ MHz-km	$\geq 1500$ MHz-km	$\geq 500$ MHz-km	$\geq 200$ MHz-km
	@ 1300 nm	-	$\geq 500$ MHz-km	$\geq 500$ MHz-km	$\geq 500$ MHz-km	$\geq 500$ MHz-km
Cable Cut-off Wavelength , $\lambda_{cc}$		$\leq 1260$ nm		-		-

Note: Single mode G.655 fiber are available upon request