

## 306-NMA5XX-Y000

### Fiber Optic Cable 50/125 Multimode Indoor/Outdoor Non-Metallic



#### DESCRIPTION

The fibers, 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 steel wire, sometimes sheathed with polyethylene (PE) for cable with high fiber count, locates in the center of the core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. A steel tape, with Plastic coating on each side (PSP), is longitudinally applied over the cable core, which is filled with filling compound to protect it from water ingress. The cable is completed with a Polyethylene (PE) 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. It is commonly used for high voltage and low voltage crossing route. The PE Sheath provides UV and Chemical/Oil resistance.

#### STANDARDS

EN 50173: 2002 category OM1/OM2, ISO/IEC 11801: category OM1/OM2, ANSI/TIA/EIA 568.2: 2002, ANSI/TIA/EIA 568.3: 2002, ANSI X3.166-1990, IEC 9314-3, IEC 60793-2-10, ITU Recommendation G652, G652A/B/C/D, IEC 60793-2-50, IEC 60794-1, Type 1/B1.3/B4.

#### CHARACTERISTICS

- Accurate fiber excess length ensures good mechanical and temperature performance.
- High strength loose tube that is hydrolysis resistant and special tube filling compound ensure a critical protection of fiber.
- Specially designed compact structure is good at preventing loose tube from shrinking.
- Crush resistance and flexibility.
- Steel Tape (PSP) enhances the cable crush resistance, impact resistance and moisture proof.
- Loose tubes are filled with filling compound to ensures tubes are watertight.
- 100% cable core filling ensures cable is watertight.

#### Physical Properties

##### Sheath Thickness

Outer Sheath Thickness (mm)	Inner Sheath Thickness (mm)
Nominal 1.0	Nominal 1.0

##### FRP Diameter

FRP Diameter (mm)
2.25

##### Loose Tube Diameter & Thickness

Loose Tube Diameter (mm)	Loose Tube Thickness (mm)
2.1	0.3

##### Crush Resistance

Crush Resistance (N/100mm)	
Long Term	Short Term
300	1000

### Tensile Strength

Tensile Strength	
Long Term	Short Term
600	1500

### Bending Radius

Bending Radius (mm)	
Static	Dynamic
10 x Outer Diameter	20 x Outer Diameter

### Operating & Storage Temperature

Operating Temp.	Storage Temp.
-40°C to +70°C	-40°C to +70°C

## CABLE PROPERTIES

Fiber Count	No. of Tubes	No. of Fillers	Cable Ø (mm)	Cable Weight (kg/km)
2~6	1	5	11.0	100
8~12	2	4	11.0	100
14~18	3	3	11.0	100
20~24	4	2	11.0	100
26~30	5	1	11.0	100
32~36	6	0	11.0	100

### Fibers Colour

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

### Losse Tubes Colour

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

## OPTICAL PROPERTIES

### Attenuation @20°C

Attenuation	
@ 850 nm	@ 1300 nm
≤ 3.0 dB/km	≤ 1.0 dB/km

### Bandwidth

Bandwidth (Class B)	
@ 850 nm	@ 1300 nm
≥ 400 Mhz-km	≥ 800 Mhz-km

### Numerical Aperture

Numerical Aperture
0.200 ± 0.015

### Group Index Of Refraction

Group Index Of Refraction (Neff)	
@ 850 nm	@ 1300 nm
1.482	1.477

### Part Number

306-NMA5XX-Y000	Fiber Optic Cable 50/125µ Multimode Indoor/Outdoor Non-Metallic
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### Product Family

306-NMA6XX-Y000	Fiber Optic Cable 62.5/125µ Multimode Indoor/Outdoor Non-Metallic
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### Note :

1. Substitute XX is number of fiber cores.
2. Multimode G.651 Class A, Single mode G.652 (Class C and D) and G.655 fiber are available upon request.

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