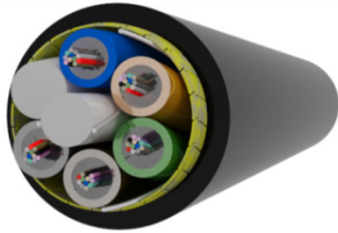


# M-TEC



## Fibre Optic Cable

Medium Span, All-Dielectric, Self-Supporting, single jacket Aerial cable, M-TEC standard / NRS078-1.

### Application:

To be strung on poles / Structures in air, supporting its own weight. Strung in air over a medium distance span lengths 100m to 250m between supports.

### Construction:

GRP, water blocking binder, fiber optics in tubes filled with thixotropic gel, separator tape, water blocking binder, water blocking Kevlar, Polyethylene outer sheath.

### Fiber Types:

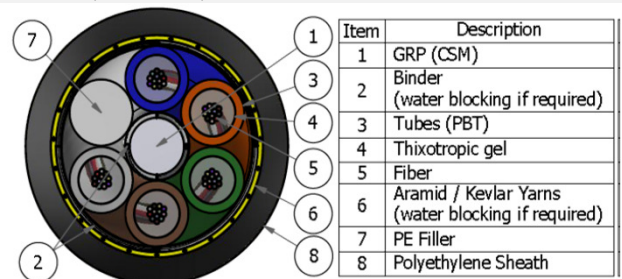
Single-Mode : G652D, G655(C,E,D), G656(A,D,E), G657.(A1,A2,B2) Ultra low loss.  
Multi-Mode : OM1(62.5/125), OM2, OM3, OM4.

Construction				
Number of Fibres (Fibre Count)	2-8	12	24	48
Fibres per Tube	6	6/12	6/12	12
Number of Elements	5	5	5	5
Number of Tubes	1	2/1	4/2	4
Number of Fillers	4	3/4	1/3	1
Material of Tubes	PBT (Polybutylene Terephthalate)			
Cable				
Central Strength Member (GFRP)	Glass fiber reinforced plastic (non metallic)			
Filler Material	Natural Polyethylene			
Strength Member Material	Aramid yarn			
Polyethylene outer sheath				
Diameter (mm) Nominal	10.1	10.1	10.1	10.1
Weight (kg/km) Nominal	75	75	75	75
Inner and Outer Sheath	Black (No Stripe)			
Material	Polyethylene UV stable			
Radial Thickness	Nominal 1.6mm			
Physical properties				
Allowable Tensile strength				
During Installation	7 500 N			
After Installation	4 000 N			
Sag at Everyday Stress @ 250m Spans	2.5m			
Bending Radius				
After Installation	10 x Cable Diameter			
During Installation	20 x Cable Diameter			
Crush Resistance (100mm x 100mm Plates for 1min)	4,000 N			
Impact Test (2Nm/25mm Anvil)	20			
Torsion (± 180°C for 10 cycles)	1 meter			
Water Penetration (24 Hours)	3 meter			
Temperature Range	-10 / +70 °C			

Fibre identification:	1. Blue 2. Orange 3. Green 4. Brown 5. Grey 6. White 7. Red 8. Black 9. Yellow 10. Violet 11. Pink 12. Turquoise/Aqua
Loose Tube identification:	1. Blue 2. Orange 3. Green 4. Brown 5. Grey 6. White 7. Red 8. Black 9. Yellow 10. Violet 11. Pink 12. Turquoise/Aqua
Shipping Length	2,000m to 6,000m

### Product Features

- The Medium span loose tube Aerial self supporting cable is suitable for installation on spans up to 250m and a vast range of other self supporting applications.
- Polyethylene outer sheath is UV stabilized, if black.
- Low installation and product cost and fast installation reduces the total project cost.
- The cable's non metallic construction makes it immune to lightning.
- Two layers of helical ARAMID / Kevlar strength members enables the cable to withstand (EDS) every day stress and abnormal environmental loading, makes the cable resistant to creep with a high modulus and eliminates torsional stress.
- Excellent optical reliability is ensured by the gel filling in the tubes which provide protection against vibration.



**Customer acceptance Signature:** \_\_\_\_\_

Revision: R01 13/11/2014

Page: 1 of 1

The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of M-TEC. The information is believed to be correct at the time of issue to the best of M-TEC's knowledge. M-TEC reserves the right to amend this specification without prior notification. This specification is not contractually valid unless specifically authorised by M-TEC. M-TEC shall not be liable for any damages whatsoever (including indirect, incidental, special, punitive or consequential damages and loss of profits, opportunities or information) arising from or result from the use of or reliance on information contained in this document, and/or any inaccuracy or omission in such information contained in this document.