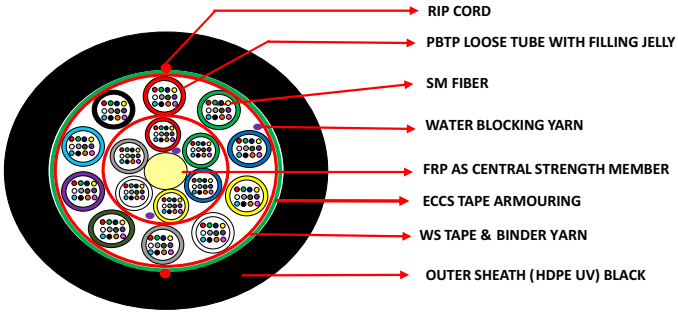
NOVA CABLE COMPANY
Complete FTTH Solutions

Data Sheet

Scientific™
The Science of Fibre

192F (16x12) SM G 652D MLT Single Sheath Armoured OF Cable (For Underground Duct Application)

Fiber Allocation Scheme		
Tube Colour	**Fiber Type**	**No of Fiber**
Blue	SM G 652 D	12
Orange	SM G 652 D	12
Green	SM G 652 D	12
Brown	SM G 652 D	12
Slate	SM G 652 D	12
White	SM G 652 D	12
Red	SM G 652 D	12
Black	SM G 652 D	12
Yellow	SM G 652 D	12
Violet	SM G 652 D	12
Pink	SM G 652 D	12
Aqua	SM G 652 D	12



Construction Details	
No of Fibre/Tube	: 12F per Tube - Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Voilet, Pink & Aqua
Loose Tube - Layer 1	: PBT Loose Tube Filled With Thixotropic Jelly **(1.9 ± 0.1 mm)**
Loose Tube - Layer 2	: PBT Loose Tube Filled With Thixotropic Jelly **(1.9 ± 0.1 mm)**
No of Loose Tube - Layer 1	: 06 (Six) Loose Tube
No of Loose Tube - Layer 2	: 10 (Ten) Loose Tube
Tube Identification - Layer 1	: Blue, Orange, Green,Brown, Slate & White
Tube Identification - Layer 2	:Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow & Voilet
Water Blocking Elements	: Water Swellable Tape & Water Blocking Yarns
Central Strength Member	: Fiber Reinforced Plastic - FRP (Non Metallic) -3.0 ± 0.1 mm Upsheath To 4.0 ± 0.1 mm
Moisture Barrier (Protection)	: Water Blocking Yarns & Water Swellable Tape
Core Wrapping	: Water Swellable Tape With Binder Yarn
Armouring	: Corrugated ECCS Tape Applied Over the Core
Core Wrapping	: Core Wrapped With Water Blocking Tape & Binder Yarn
Rip Cord	: Two Rip cord provided Below The Sheath
Outer Sheath	: HDPE UV Black Colour - **1.60 mm (Nominal)**

Fibre Characteristics (As per ITU-T Rec. G. 652 D)			
Attenuation (Transmission Characteristics)		**Geometrical Characteristics**	
@ 1310 nm	: ≤ 0.36 (dB/Km)	Mode Field Diameter @ 1310 nm	: 9.2 ± 0.4 µm
@ 1550 nm	: ≤ 0.23 (dB/Km)	Mode Field Diameter @ 1550 nm	: 10.4 ± 0.5 µm
@ 1625 nm	: ≤ 0.26 (dB/Km)	Cladding Diameter	: 125 ± 0.7 µm
Dispersion		Cladding Non Circularity	: ≤ 1%
A. Total Dispersion (Chromatic Dispersion)		Core Clad Concentricty Error	: ≤ 0.5 µm
1285-1330 nm	: < 3.5 ps/nm.km	Coating Diameter	: 245 ± 10 µm
1270-1340 nm	: < 5.3 ps/nm.km	Coating/Cladding Concentricity	: ≤ 12 µm
1550 nm	: < 18.0 ps/nm.km	**Cut Off Wavelength**	
1625 nm	: < 22.0 ps/nm.km	Fibre cut-off Wavelength	: < 1320 nm
B. Polarization Mode Dispersion at 1310 & 1550 nm		Cable Cut-off Wavelength	: < 1260 nm
At Fibre Stage	: ≤ 0.2 ps/sqrt.km	**Mechanical & Operating Characteristics**	
At Cable Stage	: ≤ 0.3 ps/sqrt.km	Operating Temperature	: -60° C to +85° C
C. Dispersion Slope & Wave Length		Fibre Proof Test	: 1%
Zero Dispersion Wavelength	: 1300-1324 nm	Stripability Force	: 1.3 < F < 8.9 N
Zero Dispersion Slope	: ≤ 0.092 ps/nm².km	Fibre Curl	: ≥ 4 meter radius of curvature

Cable Mechanical & Physical Characteristics			
Cable Mechanical Characteristics		**Cable Physical Characteristics**	
Max. Tensile Strength (IEC 60794-1-2 E1)	: 9.81 X 2.0 W (Newton)	Cable Diameter (Nominal)	: 17.0 mm ± 0.5 mm
Crush Resistance (IEC 60794-1-2-E3)	: 2000 N/10 CM x 10 CM	Nominal Cable Weight	: 250 Kg/Km
Impact Resistance (IEC 60794-1-2-E4)	: 50 N/0.5 Meter/10 Impacts	Packing Length	: 2 Km ± 5% & (SLG - 5%)
Repeated Bending Test (IEC 60794-1-2-E6)	: 20 X Dia/5 Kg/30 Cycles	Printing Details	: As Per Customer Requirement
Torsion Test (IEC 60794-1-2-E7)	: 2 Mt/100 N/± 360°D/10 Cycle	Temp. Cycling Test (IEC 60794 1-2 F1)	: -20°-10°+60°+70° Deg C - 12 Hrs
Kink Test (IEC 60794-1-2-E10)	: No Kink - (10 X Bend Radius)	Water Pen. Test (IEC 60794 1-2 F5)	: 1 Meter/3 Meter/24 Hrs
Cable Bend Test (IEC 60794-1-2-E11)	: 20 D/4 Turns/10 Cycles	Drip test (IEC 60794 1-2 E14)	: 30 CM Sample/+70° C/24 Hrs