

AKSH TECHNOLOGIES LIMITED

PART No.: D-12/SM/UT(2F&G)-MFP-B7.5

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DESIGN & DATA SPECIFICATION SHEET

CABLE TYPE: 12F SM DIELECTRIC DUCT O.F. CABLE

PREPARED BY:
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1. FIBRE PROPERTIES:

| CHARACTERISTICS | UNIT | VALUE |
|-----------------------------------|------------------------|-----------------------------|
| ATTENUATION @ 1310 nm | dB/km | ≤ 0.38 Max & ≤ 0.35 Average |
| @ 1550 nm | | ≤ 0.25 Max & ≤ 0.22 Average |
| CHROMATIC DISPERSION 1285-1330 nm | ps/nm.km | ≤ 3.5 |
| At 1550 nm | | ≤ 18.0 |
| ZERO DISPERSION WAVELENGTH | nm | 1300 to 1324 |
| ZERO DISPERSION SLOPE | ps/nm ² .km | ≤ 0.092 |
| CUT OFF WAVELENGTH | nm | ≤ 1320 |
| MODE FIELD DIAMETER at 1310 nm | um | 9.3 ± 0.5 |
| CORE- CLAD CONCENTRICITY ERROR | um | ≤ 0.8 |
| CLADDING NON CIRCULARITY | % | ≤ 1.0 |
| CLADDING DIAMETER | um | 125 ± 1.0 |
| COATING DIAMETER | um | 245 ± 10 |

2. MECHANICAL & ENVIRONMENTAL PROPERTIES

| | | |
|---|---|--------------------|
| A. MAX. OPERATING TENSION -- LONG TERM | : | 500 Newton |
| MAX INSTALLATION TENSION -- SHORT TERM | : | 1000 Newton |
| B. CRUSH RESISTANCE | : | 2000 Newton/100 mm |
| C. MINIMUM BENDING RADIUS---TEMPORARY | : | 75 mm |
| PERMENANT | : | 150 mm |
| D. MAX. OPERATING/ INSTALLATION TEMPERATURE | : | - 30 °C to + 70 °C |

3. PHYSICAL & DIMENSIONS PROPERTIES

| | |
|------------------------|---|
| NO. OF FIBRES | 12F |
| TYPE OF FIBRE | SM G652 D |
| LOOSE TUBE DIAMETER | 2.8 mm Nominal |
| STRENGTH MEMBER | FRP & GLASS YARN REINFORCEMENT |
| FRP DIAMETER (2 Nos.) | 1.0 mm Nominal |
| COLOUR OF FIBRE | BLUE, ORANGE, GREEN, BROWN, SLATE, WHITE, RED, BLACK, YELLOW, VIOLET, PINK & AQUA |
| OUTER SHEATH MATERIAL | H.D.P.E. |
| OUTER SHEATH THICKNESS | 2.0 mm NOMINAL |
| OUTER CABLE DIAMETER | 7.5 ± 0.5 mm |
| CABLE WEIGHT | 47 ± 5 Kg/km |
| PRINTING ON CABLE | AS PER CUSTOMER REQUIREMENT |
| STANDARD LENGTH | 2,3,4 KM + 10% |

CROSS SECTIONAL VIEW:

F.R.P. ROD
OUTER SHEATH (H.D.P.E)
RIP CORD
GLASS ROVINGS
LOOSE TUBE WITH FIBRES

