

**AKSH TECHNOLOGIES LIMITED**

**PART No.: D-6/SM/UT(2F&G)-MFP-B7.5**

**REVISION NO : 00  
DATE OF ISSUE : 09.05.2012**

**DESIGN & DATA SPECIFICATION SHEET**

**CABLE TYPE: 6F SM DIELECTRIC DUCT O.F. CABLE**

**PREPARED BY:  
RAJAN KUMAR**

**1. FIBRE PROPERTIES:**

<b>CHARACTERISTICS</b>	<b>UNIT</b>	<b>VALUE</b>
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 <sup>2</sup> .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	6F
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
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

