

# AKSH TECHNOLOGIES LIMITED

PART No.: B-24/SM/UT(2W)-CCSTP-B10.5

REVISION NO. : 00

DATE OF ISSUE : 30.11.2011

CABLE TYPE: 24F SM UNITUBE OPTICAL FIBRE CABLE

## DESIGN & DATA SPECIFICATION SHEET

PREPARED BY:  
RAJAN KUMAR

### 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 <sup>2</sup> .km	≤ 0.092
CUT OFF WAVELENGTH	nm	≤ 1320
POLARISATION MODE DISPERSION	ps/root km	≤ 0.2
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	:	2000 Newton
-- SHORT TERM	:	4000 Newton
B. CRUSH RESISTANCE	:	4000 Newton/10 cm
C. MINIMUM BENDING RADIUS -- LONG TERM	:	210 mm
--SHORT TERM	:	105 mm
D. MAX. OPERATING/ INSTALLATION TEMPERATURE	:	- 30 °C to + 70 °C

### 3. PHYSICAL & DIMENSIONS PROPERTIES

NO. OF FIBRES	24 F
TYPE OF FIBRE	SM G652 D
LOOSE TUBE DIAMETER	3.6 mm Nominal
STRENGTH MEMBER	STEEL WIRE (1.2 mm)
COLOUR OF FIBRE	BLUE, ORANGE, GREEN, BROWN, SLATE, WHITE, RED, BLACK, YELLOW, VIOLET, PINK & AQUA
FIBRE BUNDLE COLOUR	BLUE & ORANGE
OUTER SHEATH MATERIAL	H.D.P.E.
OUTER SHEATH THICKNESS	2.7 mm Nominal
OUTER CABLE DIAMETER	10.5 ± 0.5 mm
CABLE WEIGHT	121 ± 11 Kg/km
PRINTING ON CABLE	AS PER CUSTOMER REQUIREMENT
STANDARD LENGTH	2,3,4 KM + 10%

### CROSS SECTIONAL VIEW:

OUTER SHEATH (H.D.P.E)

CORRUGATED STEEL TAPE

FILLING JELLY

OPTICAL FIBRE

RIP CORD

LOOSE TUBE WITH FIBRES

STTEL WIRE

