

# AKSH TECHNOLOGIES LIMITED

PART No.: B-6/SM/UT(2SW&G)-CCSTP-B9.0

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CABLE TYPE: 6F SM OPTICAL FIBRE CABLE

## DESIGN & DATA SPECIFICATION SHEET

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### 1. FIBRE PROPERTIES:

CHARACTERISTICS	UNIT	VALUE
ATTENUATION @ 1310 nm	dB/km	$\leq 0.38$ Max & $\leq 0.35$ Average
@ 1550 nm		$\leq 0.25$ Max & $\leq 0.22$ Average
CHROMATIC DISPERSION 1285-1330 nm	ps/nm.km	$\leq 3.5$
At 1550 nm		$\leq 18.0$
ZERO DISPERSION WAVELENGTH	nm	1300 to 1324
ZERO DISPERSION SLOPE	ps/nm <sup>2</sup> .km	$\leq 0.092$
CUT OFF WAVELENGTH	nm	$\leq 1320$
POLARISATION MODE DISPERSION	ps/root km	$\leq 0.2$
MODE FIELD DIAMETER at 1310 nm	um	$9.3 \pm 0.5$
CORE- CLAD CONCENTRICITY ERROR	um	$\leq 0.8$
CLADDING NON CIRCULARITY	%	$\leq 1.0$
CLADDING DIAMETER	um	$125 \pm 1.0$
COATING DIAMETER	um	$245 \pm 10$

### 2. MECHANICAL & ENVIRONMENTAL PROPERTIES

A. MAX. OPERATING TENSION -- LONG TERM	:	1500 Newton
-- SHORT TERM	:	3000 Newton
B. CRUSH RESISTANCE	:	4000 Newton/10 cm
C. MINIMUM BENDING RADIUS -- LONG TERM	:	180 mm
--SHORT TERM	:	90 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	STEEL WIRE & GLASS YARN REINFORCEMENT
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	$\geq 1.8$ mm
OUTER CABLE DIAMETER	$9.0 \pm 0.5$ mm
CABLE WEIGHT	$85 \pm 9$ Kg/Km
PRINTING ON CABLE	AS PER CUSTOMER REQUIREMENT
STANDARD LENGTH	$2,3,4 \pm 10\%$ KMS

### CROSS SECTIONAL VIEW:

OUTER SHEATH (H.D.P.E)

CORRUGATED STEEL TAPE

FILLING JELLY

OPTICAL FIBRE

GLASS YARN REINFORCEMENT

LOOSE TUBE WITH FIBRES

STEEL WIRE

