

# AKSH TECHNOLOGIES LIMITED

PART No.: D-48/SM/MTY(F&G)-MFP-B11.2

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## DESIGN & DATA SPECIFICATION SHEET

CABLE TYPE: 48F SM DUCT O.F. CABLE

PREPARED BY:  
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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	:	800 Newton
MAX INSTALLATION TENSION -- SHORT TERM	:	1600 Newton
B. CRUSH RESISTANCE	:	2000 Newton/100 mm
C. MINIMUM BENDING RADIUS -- TEMPORARY	:	112 mm
PERMANENT	:	224 mm
D. MAX. OPERATING/ INSTALLATION TEMPERATURE	:	- 30 °C to + 70 °C

### 3. PHYSICAL & DIMENSIONS PROPERTIES

NO. OF FIBRES	48F
NO OF TUBES/NO OF FILLER	4/2
TYPE OF FIBRE	SM G652 D
LOOSE TUBE DIAMETER	2.1 mm Nominal
STRENGTH MEMBER	FRP & GLASS YARN REINFORCEMENT
SEQUENCE OF TUBE	BLUE, ORANGE, GREEN, BROWN, FILLER-1, FILLER-2
COLOUR OF FIBRE	BLUE, ORANGE, GREEN, BROWN, SLATE, WHITE, RED, BLACK YELLOW, VIOLET, PINK & AQUA
OUTER SHEATH MATERIAL	HDPE
OUTER SHEATH THICKNESS	1.8 mm NOMINAL
OUTER CABLE DIAMETER	$11.2 \pm 0.6$ mm
CABLE WEIGHT	$98 \pm 10$ Kg/Km
PRINTING ON CABLE	AS PER CUSTOMER REQUIREMENT
STANDARD LENGTH	$2,3,4 \pm 10\%$ KMS

### CABLE CROSS SECTION:

**OUTER SHEATH (H.D.P.E)**

**IMPREGNATED GLASS ROVING**

**F.R.P**

**WS YARNS**

**WATER SWELLABLE TAPE**

**LOOSE TUBE WITH FIBRES**

**RIP CORD**

