

# AKSH TECHNOLOGIES LIMITED

PART No.: B-48/SM/MTY(F&G)-CCSTP-B12.5

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## DESIGN & DATA SPECIFICATION SHEET

CABLE TYPE: 48F SM ARMOURED 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 <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. TENSILE LOAD	:	2800 Newton
B. CRUSH RESISTANCE	:	4000 Newton/100 mm
C. MINIMUM BENDING RADIUS -- TEMPORARY	:	125 mm
PERMANENT	:	250 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
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 & NATURAL
OUTER SHEATH MATERIAL	HDPE
OUTER SHEATH THICKNESS	≥ 1.8 mm
OUTER CABLE DIAMETER	12.5 ± 0.7 mm
CABLE WEIGHT	142 ± 14 Kg/Km
PRINTING ON CABLE	AS PER CUSTOMER REQUIREMENT
STANDARD LENGTH	2,3,4 ± 10% KMS

### CABLE CROSS SECTION:

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

**F.R.P**

**WS YARNS**

**WATER SWELLABLE TAPE**

**CORRUGATED STEEL TAPE**

**LOOSE TUBE WITH FIBRES**

**RIP CORD**

