

FRP ROD GLASSFIBRE REINFORCED PLASTIC ROD



## FRP ROD - A CENTRE STRENGTH MEMBER FOR OFC

FRP ROD is manufactured using telecom grade E Glassfibre and specially formulated superior quality thermosetting resin using the state-of-the art UV curing system.

The Glassfibre Reinforced Plastic Rod or the Central Strength Member (CSM) provides tensile strength to the cable protecting it during installation and it's rigidity prevents cable buckling during the life of the cable. It can be used as central or peripheral strength member in OFC.

#### **PRODUCT SILENT FEATURES**



High tensile strength, high modulus, High flexibility



Low stretch, low expansion, low weight, Cost effective



Free from chemical corrosion. Compared with metal wire, FRP rod eliminates harmful gas



Excellent insulation and immune to electromagnetic interference



Electric resistant, consistent diameter & shape



Higher stiffness, anti-buckling properties, used for all dielectric / metallic cables

Smooth surface, stable sizes, easy processing and installation



Higher glass content, higher heat resistant, Higher LASE values, Longer life



Low bend radius, High torsional strength



# PRODUCT RANGE

FROM 0.8 MM TO 6.0 MM

# PRODUCT TYPE

### Hard Coat:

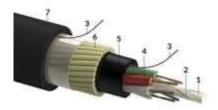
It is di-electric rod used in di-electric cable design as a CSM. Also used as armouring element in some type of cables.

#### Mega Bond, E Bond, D Bond:

Used for applications where in specific high adhesive coatings to jacket material is required. EAA is used for the same which applied in microns by extrusion process.



Rip Cord Outer sheath - HDPE Inner Sheath - PE Polyester Tape RP Rod Loose Tube with Fibres Flooding Jelly Aramid Yam



- 1. FRP central strength member
- 2. Water-blocking yarn
- 3. Rip-cord
- 4. Gel filled PBT loose tube with optical fibres
- 5. UV stable LDPE inner sheath
- 6. Armour of FRP rods fixed by PET tape
- 7. UV stable HDPE outer sheath

# PHYSICAL PROPERTIES

DESCRIPTION	VALUE	UNIT	TESTING METHOD
Density	1.90 to 2.20	gm/cc	DIN 53479
Glass Content	80± 2	%	DIN EN ISO 1172
Ovality	< 3.5	%	PPCL QC WI 10
Diameter Stability	±0.05	mm	PPCL QC WI 10

# MECHANICAL PROPERTIES

DESCRIPTION	VALUE	UNIT	TESTING METHOD
Tensile Strength	1.4	Gpa	ASTM D 3916 - DIN EN ISO 527-4
Tensile Modulus	> 50	Gpa	ASTM D 3916 - DIN EN ISO 527-4
Elongation @ Break	< 4.0	%	ASTM D 3916 - DIN EN ISO 527-4
Min Bend Radius	25 X D @ 25 deg cen	mm	ASTM D 696 - DIN ISO 7991
Coefficient of Thermal Expansion	6.6 X 10E-6 / deg cen	mm	ASTM D 696 - DIN ISO 7991
Flexural Modulus	> 50	Gpa	ASTM D 790
Heat Stress Tolerance (Bend Radius) Long Term Test	50 X D @ 80 deg cen	mm	PPCL QC WI 007



# PACKING

FRP Rod is being wound on the spool made of high quality plywood with different barrel diameters, flange thickness & traverse, depending on the product size and client requirement.

FRP Rod was covered with 3 layers of stretch wrap film & 7 layers of air bubble sheet before tightened with straps. Labels will provide all the required details like product type, size, quantity, manufacturing date, batch number, weight, unwinding direction, etc.

Spools are being transported, stacked on wooden pallet, 3 nos each in horizontal condition supported by air bags. Wooden pallets are supplied









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CIN No | ISO 9001: 2015 Certified Company