

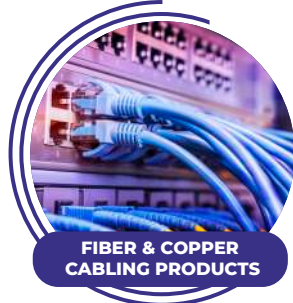
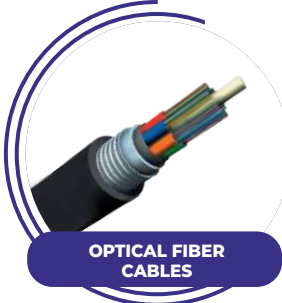
ABOUT US

As an Industry acclaimed Cable Reinforcement Solutions Manufacturer in India, HTL Ltd's high-performance Fiber Reinforced Rod (FRP), Aramid Reinforced Rod (ARP) & Impregnated Glass Fiber Reinforcement (IGFR) are the product of choice for leading Indian as well as global cable manufacturing companies who demand the highest quality, durability & safety standards.

Our State-of-the-Art Manufacturing facility located at Hosur in Tamil Nadu, India manufactures FRP Rods, ARP Rods & IGFR Yarns in complete compliance with the Industry norms and standards. Our Customer First approach ensures world-class quality, on-time delivery & availability of our products to all of our customers across the globe thereby maximising customer satisfaction.



OTHER BUSINESS VERTICALS



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CABLE REINFORCEMENT SOLUTIONS (CRS)

FIBER REINFORCED PLASTIC ROD

Fiber Reinforced Rods are used as strength members in optical fibre cables. Fiberglass reinforcements are pultruded with unique resin formulations to produce a final thermoset FRP rod.



CHARACTERISTICS

- ▶ Long splice-free length
- ▶ Superior dimensional stability
- ▶ Designed for all-dielectric or metallic cable application
- ▶ Provides anti-buckling properties and protection during installation

APPLICATIONS



SIZES & OFFERINGS

- ▶ UV FRP from 0.5 mm to 3.5 mm diameter & Thermal FRP from 0.8 mm to 3.5 mm diameter respectively

TECHNICAL SPECIFICATIONS

Property	Test Method	Unit	Value
Glass Content	-	%	80 by weight
Ovality	Micro - meter	mm	< 0.05
Tensile Modulus	ASTM D 638	Kg/mm ²	≥ 5000
Min. Bend Radius	-	mm	25 x D @ 23°C
Diameter Stability	Micro - meter	mm	± 0.05
Elongation @ Break	ASTM D 3916	%	2.5 – 4.0
Ultimate Tensile Strength	ASTM D 3916	Kg/mm ²	≥ 140
Heat Stress Tolerance (Bend Radius)	-	mm	24 hours @ 80°C, 50 x D

IMPREGNATED GLASS FIBER REINFORCEMENT

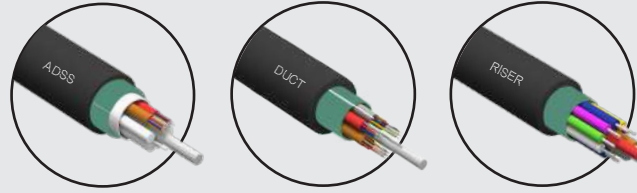
IGFR are used as flexible strength members, in combination with/without FRP rods to provide peripheral strength. We provide proper smooth and flexible coating on them, which facilitates their handling and removes dust & wobbly fibers during cable production even at very high speeds.



CHARACTERISTICS

- ▶ Smooth & Even Surface
- ▶ Good adhesion property
- ▶ High strength to weight ratio
- ▶ High degree of softness and strength

APPLICATIONS



SIZES & OFFERINGS

- ▶ Standard variants from 630 to 1850 Tex (NWB)

TECHNICAL SPECIFICATIONS

Property	Test Method	Unit	Value				
			Type A	Type B	Type C	Type D	Type E
Linear Density	ASTM D 885	Tex	1700±5%	800±5%	630±5%	1260±5%	1850±5%
Breaking Load	ASTM D 885	N	≥ 950	≥ 440	≥ 350	≥ 600	≥ 950
Modulus of Elasticity	ASTM D 885	N/mm ²	≥ 65000	≥ 65000	≥ 65000	≥ 65000	≥ 65000
Elongation at Break	ASTM D 885	%	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Loss on Ignition (for water blocking type)	ASTM D 4963-94	%	6 ± 2	6 ± 2	6 ± 2	6 ± 2	6 ± 2
Loss on Ignition (for non-water blocking type)	ASTM D 4963-94	%	3.0 ± 1	3.0 ± 1	3.0 ± 1	3.0 ± 1	3.0 ± 1
Water Absorption, 1 minute in deionised water (for water blocking type)	ASTM D 570	% wt gain	≥ 400	≥ 400	≥ 400	≥ 400	≥ 400
Load at Elongation @ 0.5% Strain	ASTM D 885	N	≥ 200	≥ 100	≥ 75	≥ 150	≥ 200

ARAMID REINFORCED PLASTIC ROD

Aramid Reinforced Plastic Rods are particularly designed to meet the strength member requirement in most of the FTTH drop cables. It provides tensile strength to the cable, protecting it during installation and its rigidity prevents cable buckling during cable life.



CHARACTERISTICS

- ▶ Inert with sheathing material
- ▶ Soft, Flexible, and Easy to Handle
- ▶ Good mechanical & environmental characteristics
- ▶ Designed for all-dielectric or metallic cable application

APPLICATIONS



SIZES & OFFERINGS

- ▶ Standard diameter sizes from 0.4 mm to 1.2 mm

TECHNICAL SPECIFICATIONS

Property	Test Method	Unit	Value
Aramid Content	DIN EN ISO 1172	%	68 ± 2
Ovality	Micro-meter	mm	< 0.05
Tensile Modulus	ASTM D 638	Kg/mm ²	≥ 6500
Min. Bend Radius	-	mm	≤ 16D
Diameter Stability	Micro-meter	mm	± 0.05
Heat Stress @ 80°C	-	mm	50xD
Elongation @ Break	ASTM D 3916	%	≤ 3
Tensile Strength at Break	ASTM D 3916	Kg/mm ²	≥ 150