

A photograph showing a complex network of FRP cable trays installed in a server room. The trays are light-colored and supported by a metal frame. Numerous black cables are visible running through the trays. The background shows server racks and a blue wall.

FRP CABLE TRAY

FIBRO PLASTICHEM INDIA PVT LTD
DANKUNI, HOOGHLY
WEST BENGAL

Website-www.fibroplastichem.com

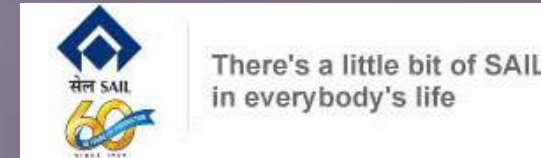
Company Introduction

An ISO 9001:2008 Company - Registered with DNV Certification B.V.

Highlights of Our Company

- ▣ **Functioning since 1972**
- ▣ **ISO 9001- 2008 company certified by DNV**
- ▣ **National award received from President of India for as a manufacturer of Quality Products.**
- ▣ **Received 1st Prize in MSME categories by BCC&I Kolkata for the year 2016.**
- ▣ **Pioneer in Design, Fabrication of FRP Cable tray, Handrail, Platform ,Cross Over, Structural Profiles , Gratings for Walkway, Trench cover, Stair Thread, Platform , Rooftop walkway etc.**
- ▣ **Pioneer in Design , Fabrication, Erection, Commissioning of FRP,PVC- FRP, PP-FRP, CPVC-FRP & PVDF-FRP Equipments & Pipes.**
- ▣ **Undertaking Project jobs for Chemical Process Equipment such as Storage Tanks, Process Tanks, Scrubbers, Absorbers, Chlorine Drying Towers, Mist Separators, Ducting, Hoods, Stacks, Piping from 20 mm to 4000 mm Dia etc. in M.O.C. as mentioned in point 4.**
- ▣ **Manufacturer of SMC / DMC products For Railways, Defence items, and Electrical & Non Electrical Items.**
- ▣ **Carrying out Acid proof Brick Lining, FRP Lining, Screeding, Epoxy Lining, and Static Lining on MS/RCC surfaces.**

OUR CUSTOMERS



FRP LADDER TYPE CABLE TRAY



CABLE MANAGEMENT SYSTEM



Benefits of FRP CABLE TRAY

- ▣ Corrosion resistance
- ▣ Light in Weight
- ▣ As it is self pigmented No need of painting
- ▣ Fire Retardant & Ultra Violet (UV) Stabilized
- ▣ Strength & Durability
- ▣ Available in all color.
- ▣ Easy to fabricate
- ▣ Easy to Install & replace
- ▣ Good impact resistance
- ▣ Low in maintenance
- ▣ Non conductive
- ▣ Cost effective
- ▣ Easy to install
- ▣ Uniform in appearance

Working Load Capacity

The working load capacity represents the ability of a fiberglass cable tray to support the static weight of cables. It is equivalent to destructive load capacity, with S.O.F of 1.5.

As per NEMA loading Standards:-

Load	Lb/ft	Kgs / Mtr
A	50	74
B	75	111
C	100	148

Support Span: 8, 10, 12 are in feet:-

Tray Type	Load Class
FLC 3	8A
FLC 4	8C, 10 B
FLC 5	10C, 8C
FLC 6	10C, 12C, 20C

Width of Cable Tray	Type of Tray	Load Kg/Mtr for Support Span 2.0 Mtr
150 mm	FLC 3	30
300 mm	FLC 3	60
450 mm	FLC 4	75
600 mm	FLC 4	90
750 mm	FLC 6	120
900 mm	FLC 6	150

Fibro FRP Cable Tray Specification

- ▣ **Standard Applicable-** NEMA -FG1-1993-REV1
- ▣ **Technical Details**
 - 2.1 Side members FRP Pultruded C-section
 - 2.2 Rung Pultruded Square hollow tube 25 x 25 mm.
 - 2.3 Assemble of Tray- Rung are fitted with Side rail by mechanical and adhesive joint.
 - 2.4 Length of Tray - 3000 mm , 6000 mm
 - 2.5 Width of Cable tray - 150mm/300mm/450mm/600mm/750mm/900mm
 - 2.6 Rung spacing- 250 mm, 300 mm
 - 2.7 Radius of fitting - 300mm, 600mm, 900mm
 - 2.8 MOC for Side member & Rung - Corrosion resistance polyester / Vinyl ester resin , Fire Retardant , UV stabilized
 - 2.9 Glass content for pultruded profile is 55-70% and 30-40 % for molded flat profile.
- ▣ **Accessories / Fittings** - All fitting are pre-fabricated and will be same specification as of straight trays.
- ▣ **Coupler plate & splice plate** - FRP / SS Coupler plate of various type i.e Straight / Adjustable for angles.

Typical Properties of Pultruded Profile

Property	ASTM Test	Unit	Value
Mechanical			
Tensile Strength (LW)	D638	psi	33,000
Tensile Strength (CW)	D638	psi	7,500
Tensile Modulus (LW)	D638	10 ⁶ psi	2.5
Tensile Modulus (CW)	D638	10 ⁶ psi	0.8
Compressive Strength (LW)	D695	psi	33,000
Compressive Strength (CW)	D695	psi	16,500
Compressive Modulus (LW)	D695	10 ⁶ psi	3.0
Compressive Modulus (CW)	D695	10 ⁶ psi	1.0
Flexural Strength (LW)	D790	psi	33,000
Flexural Strength (CW)	D790	psi	11,000
Flexural Modulus (LW)	D790	10 ⁶ psi	1.6
Flexural Modulus (CW)	D790	10 ⁶ psi	0.8
Modulus of Elasticity (Channels)	Full Section ²	10 ⁶ psi	2.8-3.2
(Square and Rectangular Tubes)	Full Section ²	10 ⁶ psi	2.8
	Full Section ²	10 ⁶ psi	3.2
Shear Modulus	Full Section ²	10 ⁶ psi	0.42
Interlaminar Shear (LW) ³	D2344	psi	4,500
Shear Strength By Punch (PF)	D732	psi	5,500
Notched Izod Impact (LW)	D256	ft-lbs/in	28
Notched Izod Impact (CW)	D256	ft-lbs/in	4
Maximum Bearing Strength (LW)	D953	psi	30,000
Maximum Bearing Strength (CW)	D953	psi	18,000
Poisson's Ratio (LW)	D3039	in/in	0.35
Poisson's Ratio (CW)	D3039	in/in	0.15
In-plane Shear (LW)	Modified D2344 ⁴	psi	7,000
LW = lengthwise	CW = crosswise	PF = perpendicular to laminate face	

Typical Properties of Pultruded Profile

Property	ASTM Test	Unit	Value
Physical			
Barcol Hardness ¹	D2583		45
Water Absorption	D570	% Max	0.6
Density	D792	lbs/in ³	0.060-0.070
Specific Gravity	D792		1.66-1.93
Coefficient of Thermal Expansion (LW)	D696	10 ⁻⁶ in/in/°F	4.4
Thermal Conductivity (PF)	C177	BTU-in/ft ² /hr/°F	4
Electrical			
Arc Resistance (LW)	D495	seconds	120
Dielectric Strength (LW)	D149	KV/in	40
Dielectric Strength (PF)	D149	volts/mil	200
Dielectric Constant (PF)	D150	@60Hz	5.2

Comparison with Conventional Material

PARAMETERS	FIBRO FRP CABLE TRAY	HOT DIP GI	SS
CORROSION RESISTIVITY	Very high	Moderate	High
ELECTRICAL CONDUCTIVITY	Low	High	High
LIFE SPAN	High	Moderate	High
STRENGTH TO WEIGHT RATIO	High	Low	Low
LIFE CYCLE COST	Low	High	High
CHEMICAL RESISTIVITY	High	High	Moderate
EMI / RFI TRANSPARENCY	High	Nil	Nil
INSTALLATION COST	Low	Moderate	Moderate
HANDLING	Very Easy	Difficult	Difficult
ANTI SKID	Available	NA	NA
COLOUR RANGE	Available	NA	NA

Applications of FRP Cable tray

- Chemical Industries
- Highly Corrosive Area
- Off Shore Platforms
- Oil & Gas Refineries
- Water Treatment Plants
- Paper Industries
- Power Plants

INDUSTRIES WE SERVE

- ▣ Refineries
- ▣ Chemical Industry
- ▣ Power Plants
- ▣ Oil & Gas Industry
- ▣ Solar Industry
- ▣ Construction Industry
- ▣ Marine & Shipping
- ▣ Offshore Platforms
- ▣ Cooling Towers
- ▣ Effluent Treatment Plants
- ▣ Architectural Industry