

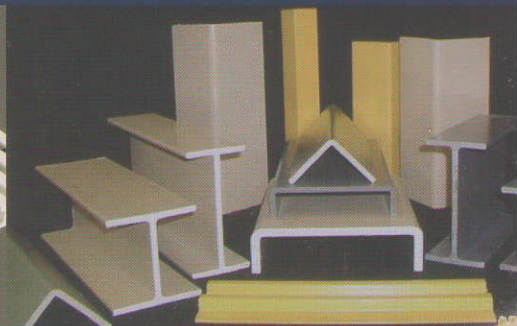
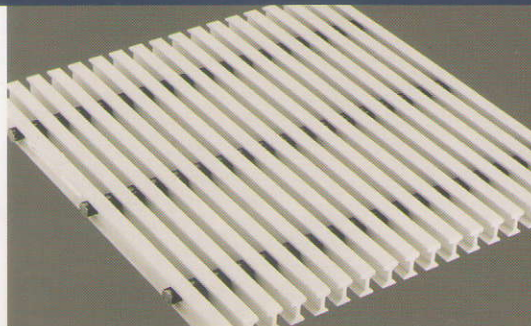
Highly Corrosion Resistant - Light Weight : High Strength

Non-Conductive - Non-Magnetic - Fire Retardant

Flexible Designing - Thermal Resistant ...

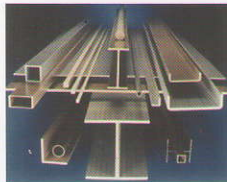
Pultruded FRP

ONE MATERIAL • MANY APPLICATIONS





FEATURE / DESCRIPTION	BENEFITS	APPLICATIONS
STRONG Unit Strength in tension & compression is approx. 20 x that of steel where these properties are combined on the basis of unit density	Optional Strength as desired. Exceptionally high impact strength reduced damage potential	Structural Process Equipment Support Tank Support Cooling Tower ancillaries Flooring Support Trusses & joints
LIGHT WEIGHT Density of pultruded components is about 20% of steel and 60% of Aluminum	Higher performance at less weight. Lower Shipping, handling & installation costs. Less operational energy demand	Automotive leaf springs & bumpers. Prefabricated walkways & platforms. Bus components.
CORROSION RESISTANT Unaffected by exposure to a great variety of corrosive environment & chemicals.	Minimum maintenance costs. Long term safety. Longer life.	Chemical plant hand railings, gratings, walkways & bridges. Cable trays. Pipe supports.
ELECTRICAL INSULATION Provides strength & rigidity with dielectric properties.	Lesser No. of components. Non-magnetic & safe. Predictable insulation values for wide range of frequencies.	Ladders, Cable trays. Switch Gear components. Mounting braces and backboards.
THERMAL INSULATION Pultruded components have a low thermal conductivity, 1/250 of aluminum & 1/60 of steel.	Reduces installation thickness Eliminates condensation problems. Reduces energy operation requirements.	Bulk head frames. Walk in refrigerator door jams. Window frames. Insulated roll up panel doors.
CONSOLIDATION Many individual components can be combined into a large profile.	Reduced assembly cost. Reduced inventory. Fewer parts improve reliability.	Window latch supports. Roll up door.
DIMENSIONAL STABILITY Pultruded components are highly resistant to warping stretch/swelling over a wide range of temperture & stresses.	No permanent deformation under high stress. Close tolerances.	Spring bumpers. Crossing gate arms. Scrubber components.
SAFETY Pultruded compnents are very strong & safe to work with. They are microbes & insects proof.	Many gratings suffer from the problem of microbes etc. due to wet or unhygienic working conditions.	This property makes them ideal choice for pharmaceutical & food industries.



Applications

- ✓ Cooling Towers
- ✓ Work Platforms
- ✓ Bridge Decking
- ✓ Ladders
- ✓ Stair Cases
- ✓ Cable Trays
- ✓ Hand Railing
- ✓ Structural Beams
- ✓ Flooring Supports
- ✓ Scaffolding
- ✓ Joists
- ✓ Tank Supports
- ✓ Building Structures
- ✓ Sub-floor Platforms
- ✓ Fencing
- ✓ Racking Systems
- ✓ Off-shore Platforms
- ✓ Staging

MECHANICAL PROPERTIES	Pultruded FRP	Rigid PVC	Mild Steel	Stainless Steel	Wood
Tensile Strength (N/mm ²)	382	44	340	340	80
Flexural Strength (N/mm ²)	468.3	70	380	380	12
Flexural Modulus (N/mm ²)	22489	2400	196000	196000	700
Izod Impact (Kg.m/cm)	2.15	0.09	1.5	0.53	~
PHYSICAL & CHEMICAL PROPERTIES					
Specific Gravity	1.8	1.38	7.8	7.92	0.52
Thermal Conductivity (Kcal/hr/m ² /°C)	24.4	6.4	1220	732	0.4
Coeff. Of Linear Expansion (cm/cm°) x 10 ⁻⁶	5.2	37	8	10	1.7
Safe Working Temperature (° C)	130	55	600	600	160
Frame Resistance	Good	Poor	Excellent	Excellent	Poor
Corrosion Resistance					
A. Acidic	Excellent	Good	Poor	Excellent	Poor
B. Alkaline	Good	Fair	Good	Excellent	Poor
C. Solvents	Fair	Poor	Good	Excellent	Fair
D. Coastal Environment	Excellent	Good	Poor	Excellent	Fair
E. Outdoor Exposure	Excellent	Poor	Fair	Excellent	Fair
F. Effluent Water	Excellent	Good	Poor	Excellent	Fair
G. Steam	Good	Poor	Fair	Excellent	Fair



A pultruded composite profile is a combination of two or more materials, where the resultant material is superior to the individual component parts. Stronglite's composite products utilise these enhanced properties to the full. Designed by an experienced and talented team who know and understand composites, and manufactured by most advanced techniques, Stronglite composite products offer durable, long term solutions at a competitive price.

PROPERTY

Traditional FRP

Pultruded FRP

Strength

Poor

High

Glass Content

20% to 30%

50% to 70%

Fiber Placement

Highly Varying

Consistent

Process

Batch/Manual

Continuous/Auto

Output

Limited

High Volume

Cross-section

Non-Uniform

Constant

Quality

Non Consistent

Highly Consistent

Uses

Light Loading

Structural



StrongLite
COMPOSITES

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