HONEYCOMB CORE FRP Panels



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Plastic honeycomb technology was developed over 25 years ago and has since become a widely accepted alternative to standard wood and foam core materials. Structural honeycomb is used globally in the hulls of mega-yachts, passenger ferries, catamarans, snowboards, truck bodies and public transit buses.

The versatility and high strength to weight ratio of the polypropylene honeycomb core FRP offer great advantages to the transportation industry. The impact resistance, insulating and sound dampening properties of the honeycomb core make it an excellent choice for roofs, floors, walls and doors in transportation and marine applications.



Advantages

- Lightweight
- Impact Resistance
- Provides Thermal Insulation
- Quiet
- Corrosion Resistant
- Rot Proof

Exterior Finish

Gel Coat. 15 mils (\pm .003") of a smooth, high gloss gel coat designed to offer superior weathering characteristics and resistance to UV degradation. All standard Fiber-Tech gel coats are formulated to offer good flexibility, are acid and alkali resistant and when the surface is properly prepared, will readily accept decals and most paints. Please refer to Fiber-Tech's Limited warranty and discuss your paint or graphic package intentions with our sales staff.

Interior Finishes

Standard – Clear film. A thin clear film is laminated to the interior surface of the panel during the composite panel production process. This heat sealable film covers typical porosity and provides a surface which is considerably easier to clean than raw resin surfaces.

Optional – Resin Surface. For applications where sanding, laminating, or bonding to the interior surface of the panel is required, upon request, Fiber-Tech will eliminate the use of the clear film. A white pigmented polyester resin will be the final interior finish and will contain porosity on the surface.

Optional – Gel Coat. Where additional protection against moisture penetration is desired, Fiber-Tech will add 15 mils (+-.003") of high gloss gel coat to the interior surface on special orders.

HONEYCOMB CORE Specifications

Lightweight

The lightweight sandwich construction of the Fiber-Tech panel helps truck and trailer manufacturers to reduce the tare weight of the unit. Lower weight means ease of material handling in the manufacturing plant, greater cargo capacity and higher fuel efficiency for the end-user.

Impact Resistance

Fiber-Tech's structural honeycomb core panels combine strength and resilience to provide a lightweight impact resistant panel. Honeycomb cores have been found to absorb and dissipate Impacts and shocks repeatedly that would cause failures in other lightweight core materials.

Thermal Insulation

Honeycomb cores are great insulators, with R factor ratings ranging up to 5.5 per inch of thickness.

Quiet

Polypropylene's natural harmonic of 125Hz to 150Hz dampens sounds and vibrations. Boats manufactured with honeycomb cores demonstrate a dramatic improvement in vibration dampening compared to traditional construction methods.

Corrosion Resistant and Rot Proof

Polypropylene honeycomb core does not rot and is unaffected by most solvents and chemical agents, therefore providing extended life of the panel.

Size Limitations

Standard panels are available in sizes up to 120" wide x 58' long. Panel heights greater than 84" may require a horizontal seam.

Manufacturing Tolerances

Width ± 1/8"	Length ± 1/8"
Straightness ± 1/8"	Squareness ± 1/4"
(Adjacent corners)	(Diagonal corners)

Warranty

Fiber-Tech offers a one (1) year Clad Tuff limited warranty. See warranty document for details.

Panel Weights

Honeycomb Core	17 oz. Glass
5 mm (.20")	13.5 oz.
7 mm (.28")	14.5 oz.
10mm (.39")	15.5 oz.
13mm (.51")	16.5 oz.
16mm (.63")	17.0 oz.
20mm (.78")	18.0 oz.
25mm (.98")	19.0 oz.
38mm (1.5")	24.0 oz.
45mm (1.77")	25.5 oz.
50mm (2.0")	26.5 oz.

Average weight per square foot (For each additional layer of molded in glass reinforcement add approximately 2 ounces per square foot)

Thickness Ranges

17 oz. Glass	22 oz. Glass
0.25" — 0.29"	0.27" — 0.31"
0.33" — 0.37"	0.35" — 0.39"
0.44" — 0.50"	0.46" — 0.52"
0.56" — 0.62"	0.58" — 0.64"
0.66" — 0.74"	0.68" — 0.76"
0.82" — 0.90"	0.84" — 0.92"
1.02" — 1.10"	1.04" — 1.12"
1.52" — 1.62"	1.54" — 1.64"
1.79" — 1.91"	1.81" — 1.93"
1.98" — 2.10"	2.00" — 2.12"

(For each additional layer of molded in glass reinforcement add 0.030")

Specifications are subject to change without notice.



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