Facts and Benefits of Using Fiberglass

- Fiberglass products are non-corrosive, strong, lightweight, maintenance-free, and can be erected efficiently and economically.
- Exterior gel coat finish and color is molded into the laminate.
- The molded-in surface coat that contains the color is resistant to ultraviolet attack and airborne contamination.
- Fiberglass products have excellent weather ability, heat resistance, chemical resistance and fire retardancy properties.
- The finished shape can be curved, corrugated, ribbed or contoured.
- Fiberglass products weigh less than two pounds per square foot of surface area.
- Per unit of weight, fiberglass is among the strongest commercial materials available. Pound for pound, fiberglass is stronger than concrete, steel or aluminum.
- Fiberglass products can be produced to be watertight.
- Fiberglass products are virtually maintenance-free.
- Fiberglass products have *at least* a thirty-year life cycle.
- Fiberglass can be recycled

Zoho Stone's FRP panels:

Our typical FRP panel parts are a nominally 3/16" thick laminate in a *Fire-retardant Class 1 (or A) resin* with exterior gel coat finish. Because our fiberglass begins with liquid polymer resins and formable glass fibers, the finished shape can be curved, corrugated, ribbed, or contoured in a variety of ways with varying thickness. Per unit of weight, our fiberglass is among the strongest commercial materials available. Pound for pound, fiberglass is stronger than concrete, steel or aluminum. Fiberglass parts can be delivered to the site ready to be installed. At times, our fiberglass product may be assembled in our shop and transported via truck, ready for installation.

Our price may include: custom tooling, parts, shop drawings, packaging, freight, lightning protection and connectors, support structures and attachment hardware. Installations may also be included as part of our total package.

Our Optimum Design

Our typical laminate is composed of the following:

1. **Gelcoat**

   - The molded-in surface coat that contains the color and is resistant to ultraviolet attack and airborne contamination.

2. **Fiberglass**

   - Fibers of glass that reinforce the plastic (polyester resin). By varying the glass content, we can affect the strength and mechanical properties of the laminate.

3. **Resin**

   - Various resins that can be formulated to meet specific physical requirements: weatherability, heat resistance, chemical resistance, fire retardancy and electrical properties.

4. **Integral Reinforcements**

   - In the form of cores, stiffeners and attachments can be molded into the laminate to produce any performance requirements.

Helping the environment by recycling fiberglass

Fiberglass is produced by using less energy and is used in products which result in less carbon emissions. Fiberglass offers advantages of being light weight yet has high mechanical strength, impact resistant, is chemical, fire and corrosion resistant, and a good thermal and electrical insulator.
Even though fiberglass is extremely useful for the reasons previously listed, an "end of life solution" is also important. Currently FRP composites with thermoset resins do not biodegrade. For many applications where fiberglass is used, this is a good thing. However, in landfills, this is not. For this reason, recent research and development has good into a solution.

New Research and innovations in the industry has lead to methods such as grinding, incineration, and pyrolysis being used for recycling fiberglass.

The recycled fiberglass finds its way in various industries and can be used in various end products. For instance, recycled fibers have been effective in reducing shrinkage in concrete thereby increasing its durability. This concrete can be used best in freezing temperate zones for concrete floors, pavements, sidewalks and curbs.

Other uses for recycled fiberglass include being used as a filler in resin, which can increase mechanical properties in certain applications. Recycled fiberglass has also found its use together with other products such as recycled tire products, plastic wood products, asphalt, roofing tar and cast polymer counter tops.