

## Glass Reinforced Plastic

**Fibreglass** is a type of fibre-reinforced plastic where the reinforcement fibre is specifically glass fibre. The glass fibre may be randomly arranged, flattened into a sheet (called a chopped strand mat), or woven into a fabric.

**Fibreglass resin** is a synthetic material that is manufactured by combining alcohols and organic acids. The resin can be prepared in various forms. They can be converted into gels, films and liquids. Fibreglass resins are polyester resins, and they are used for many different purposes.

Glass-reinforced plastic (GRP), is a composite material made of a plastic reinforced by fine fibres made of glass. Like carbon fibre reinforced plastic, the composite material is commonly referred to by the name of its reinforcing fibres (fibreglass).

Fibreglass is a strong lightweight material and is used for many products. Although it is not as strong and stiff as composites based on carbon fibre, it is less brittle, and its raw materials are much cheaper. Its bulk strength and weight are also better than many metals, and it can be more readily moulded into complex shapes.

### Uses

- Aircraft, boats, high performance cars, bath tubs, swimming pools, hot tubs, septic tanks, water tanks, roofing, pipes, surfboards, and door skins.

GRP's physical properties allow it to be easily moulded and manufactured to meet almost any specifications and with GRP, there are few limits on size, shape, colour or finish.

GRP reduces the products weight and requires less maintenance making it highly attractive over more traditional materials like timber, metal or brick.



## Strong and Durable

GRP has a high strength to weight ratio and is flexible, this means it is a lightweight material that is very strong.

GRP also has high resistance to:

- ultraviolet light
- extreme temperatures
- salt air
- chemicals including most acids

Products made from GRP require very little maintenance - no rust, no painting, no wood rot.

GRP is also non-corrosive and has a long life expectancy when compared to other construction materials like steel.

In harsh environments, GRP is a better choice over metal, wood, or plastic.

## Appearance

GRP products can be produced in many finishes, textures and colours including brick and stone effect.

Also, GRP products have sleek edges and a modern moulded look.

