

## About GRP- Commonly Asked Questions

This section is designed to answer the most commonly asked questions that we receive about our **GRP** products. Please use this section and the individual **GRP** Product pages to learn more about our offerings. If you cannot find the answer to your particular query please read our FAQ section and if need be please do not hesitate to contact us directly. Full contact information can be found on the Contact Us page.

### **Q. What does the term 'GRP' stand for?**

A. Glass Reinforced Plastic or Glass Reinforced Polyester or Fibre Reinforced....or Glass Fibre or simply Fibreglass - take your pick.

### **Q. What is it?**

A. It's a composite - i.e. a composition of materials which, when brought together under the right conditions, form a tough, lightweight, durable laminate with countless applications.

### **Q. Such as?**

A. Produced as a shaped moulding or a flat sheet it's traditionally been used on vehicle bodies (racing cars to lorries), boats, buildings, tanks, panels etc. More recently **GRP** has been found in tunnels, offshore applications, aerospace, defence, underground rolling stock, trains etc. where it outperforms conventional materials such as metal and timber.

### **Q. In what way?**

A. **GRP** doesn't dent, corrode, rot, support infestation or bacteria and has a high strength to weight ratio being several times stronger than mild steel on a weight for weight basis.

### **Q. What gives GRP its strength?**

A Think of reinforced concrete - steel rods laid in a wet mix which, when cured , will have greatly enhanced strength. Now consider millions of small glass rods, thinner than a human hair, laid in a sticky, viscous liquid - usually polyester resin - which sets to a hardened **GRP** laminate. Without the rods impact would shatter the laminate. However, with the rods the impact is absorbed and the product becomes shatter-resistant.

**Q. Can GRP be thermoformed?**

A. Not normally - most resins used for **GRP** are thermosetting (i.e. the product shape is fixed when cured) as against thermoplastic which can be reshaped by heat. Consequently, in a fire **GRP** won't melt, drip or form molten droplets.

**Q. Will GRP resist fire?**

A. Some types of **GRP** have fire resisting properties which will cause the flame to self extinguish within a time period after the fire source is removed. Resins such as Phenol Formaldehyde have improved over the last 25 years to provide superior fire performance in terms of low smoke/toxic emissions and flame spread (see Phenclad).

**Q. What are the cost savings of GRP, if any?**

A. Depends on what you're comparing with. For example, a steel fabrication that might require welding, machining, assembly etc could be made in **GRP** using moulds that give accurate repetition. Glass that is continuously broken or vandalised could be replaced with translucent **GRP** (see **GRP** Fybaglaze) which will pay for itself and most likely be safer. **GRP** Cladding (see **GRP** Fybatex) is bonded to a variety of core materials (see **GRP** Fybacore) to produce insulation panels which can make major contributions to the environment as well as reducing fuel bills. Perhaps the highest savings of all can be achieved with the use of high performing, fire resistant phenolics, including Syntactic foam ( see Phenclad TC ) when compared with the costs of fire in terms of property and human misery.

Key Services: **GRP** Glazing , **GRP** Cladding, **GRP** Stair Treads, **GRP** Gritted Non-Slip Products, **GRP** Phenolic Panels, **GRP** Specialist Products.