



**TRICEL**

GENERATIONS OF INNOVATION

# Glass

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Emulsion Bound Mat  
Powder Bound Mat  
Chopped Strands  
Rovings  
Woven Rovings  
Continuous Filament Mat

# Composites Supply Partner

*Focused on Product & Technical Expertise*

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## ▶ Emulsion Bound Mat

Emulsion bound glass (E glass) is made from strands of glass filaments held together with an emulsion binder. Mostly used in the hand-lay-up (HLU) process but can also be used in compression moulding and various laminating processes.

### **Benefits include:**

- Ease of use, ensuring good mould lay-up and conformability
- Uniform density to provide a consistent and high quality composite product
- Fast wet out in resins, ensuring the end product has the required integrity and strengths

E glass chopped strand mat is traditionally used with unsaturated polyester and vinylester. E glass with chemical resistance, also known as ECR, can be used with epoxy resins in the manufacture of panels, boats, car parts, water tanks etc.

**Available in 300g, 450g, 600g and 900g weights.**

## ▶ Powder Bound Mat

Powder bound mat is made from strands of chopped filament glass held together with a powder binder. As with emulsion bound, powder bound mat is used in the HLU process but can also be used in filament winding, compression moulding and continuous laminating. Much like the emulsion bound mat, powder bound mat has an additional benefit in that the end composite has both high dry and high wet tensile strength while also giving good transparency.

**Available in 225g, 300g, 450g and 600g weights.**

## ▶ Chopped Strands

Chopped strands, or "choppies", are pieces of glass strand filament cut into small 3, 4.5 and 6mm size pieces. Choppies can be used to sprinkle into tight corners or obscure shapes where a void may be apparent behind a gelcoat. Alternatively, they can be mixed with resin and filler to create a paste for filling voids in laminate and in moulds.

**Available in 3mm, 4.5mm and 6mm sizes.**

## ▶ Rovings

Rovings are continuous glass filaments wound onto a reel and that can then be unwound and applied by direct application in filament winding, pultrusion, sheet moulding compound (SMC) or by spray gun application.

### **Benefits Include:**

- Good quality and strand integrity
- Excellent wet out and resin compatibility
- Good product dispersion and spread
- Excellent end composite strength (elongation and tensile)

**Available in a number of product types, dependent on requirements and manufacturing process.**

## ▶ Woven Rovings

Woven rovings are bi-directional fabrics made by interweaving direct rovings to create a high-performance reinforcement. This is then used to increase the strength and stiffness of a laminate. It is usually used between layers of fibreglass matting, and is widely used in HLU, but can also be used in robotic manufacturing processes.

### **Benefits include**

- Increased and uniform laminate strength
- Higher density of composite
- Good mould adaption
- Fast wet-out for high productivity

**Available in 200g, 270g, 300g, 450g and 600g weights.**

## ▶ Continuous Filament Mat

Continuous filament mat is made from randomly orientated continuous glass filaments of E glass fibres which are held together with a binder.

This is compatible for use with unsaturated polyester, epoxy, phenolic or polyurethane resins.

Can also be used in resin transfer moulding (RTM), vacuum processes and plaster moulding.

### **Benefits include:**

- Allows the resin to flow quickly through the length of the matting and also has good dimensional stability
- Excellent wet out capabilities
- Strong multi-directional component properties

**Available in 225g, 300g, 600g and 900g weights.**

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