Biotex Jute

Biotex Jute 400g/m² 2x2 Twill

Low cost fabric for fibreglass replacement

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Biotex Jute reinforcements are based on natural jute fibre and are designed for fibre-reinforced polymer composite applications. Jute offers the benefits of premium natural fibres such as Flax, including a favourable stiffness-to-weight ratio, but at a price that rivals glass fibre. Compared to glass fibre composites, Biotex Jute offers reduced weight, improved environmental impact, vibration damping, similar specific stiffness and safer handling.

Biotex Jute is available in a range of yarn weights and fabric constructions. The materials can be processed using standard composites manufacturing techniques and are suitable for semi-structural and decorative applications in a range of sectors, including automotive, sports & leisure, consumer goods and construction.

Biotex Jute 400g/m^2 2x2 Twill fabric is typically used for replacement of glass fibre mats in general moulding applications.

The information provided here is believed to be accurate but should be considered indicative only. It is the responsibility of the customer to check the suitability of the product for their specific application prior to use.

Specifications

Weave Style	2x2 Twill	
Fabric Weight	400 g/m^2	
Width	1250 mm	Others on request
Typical Ply Thickness	0.7-0.8 mm, depending on process	

Processing

Typical processes for Biotex Jute fabrics include vacuum infusion or resin transfer moulding using either standard resins or bio-based resins. Processing is carried out in the same way as glass fibre.

Mechanical Properties

Typical mechanical properties of moulded laminates

Fibre Volume Fraction	29%	
Density	1.27 g/cm^3	
Tensile Modulus	8.1 GPa	ISO 527-4
Tensile Strength	59 MPa	ISO 527-4
Elongation	1.3%	ISO 527-4
Flexural Modulus	5.5 GPa	ISO 14125
Flexural Strength	87 MPa	ISO 14125

Data from vacuum infused laminates using unsaturated polyester resin, tested at ambient temperature.

Safety

Biotex Jute reinforcements are based on renewable biomass and have fewer health and safety concerns than many conventional alternative materials. However, typical precautions should be taken when handling the material including using appropriate PPE and adequate ventilation.

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Composites Evolution is a supplier of innovative, sustainable materials to the composites industry. Our products include fibres, resins and intermediates based on natural, bio-derived, recycled and recyclable materials, which enable customers to meet cost, weight and environmental targets.

- **Biotex Jute:** Low cost, lightweight alternative to glass fibre reinforcement
- **Biotex Flax:** High performance, lightweight alternative to glass and carbon fibres
- **Biotex Flax/PP:** Commingled reinforcement for rapid processing and reduced weight
- **Biotex Flax/PLA:** 100% bio-derived commingled reinforcement
- **Ecopreg PFA:** Fire-retardant prepreg with low environmental impact

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