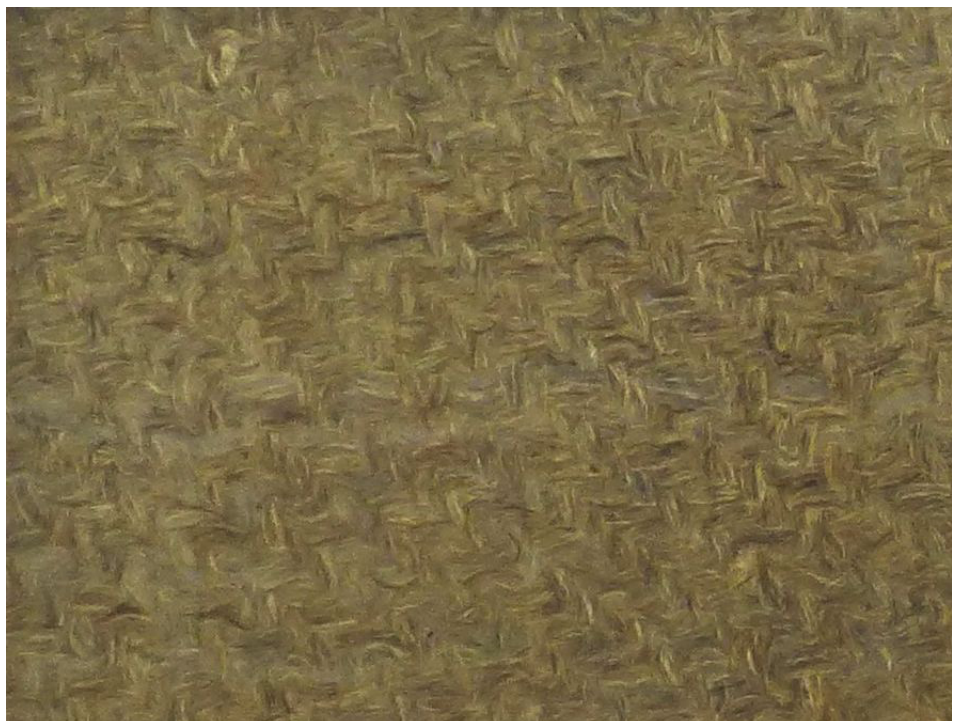


Biotex Flax/PP

Biotex Flax/PP Preconsolidated Sheet 2x2 Twill

Preconsolidated reinforced thermoplastic sheet for automotive and sporting goods applications



Biotex Flax/PP Preconsolidated Sheet 2x2 Twill

Biotex Flax provides high levels of performance, coupled with the ease of processing normally associated with glass-reinforced materials. The materials use twistless technology to provide a combination of sustainability, performance and processability. Compared to glass fibre composites, Biotex Flax offers reduced weight, improved environmental impact, vibration damping, similar specific stiffness and safer handling.

Biotex Flax/PP Preconsolidated Sheet is manufactured from commingled textiles made from natural flax fibre and polypropylene (PP) fibre and are suitable for producing fibre-reinforced thermoplastic composite parts. The sheets can be formed to shape by compression moulding or stamp forming.

Biotex Flax/PP Preconsolidated Sheet is typically used for semi-structural and decorative components in applications such as sporting goods and automotive interiors, where high production volumes and fast cycle times are needed.



Specifications

Weave Style	2x2 Twill	
Fabric Weight	0.4, 0.7, 1.0, 1.4, 1.7, 2.0 mm	Approximate values
Width	800, 1600 mm	Others on request

Processing

Typical processes for Biotex Flax/PP sheets are stamp forming and compression moulding, where the sheets are preheated and then formed in a cool matched tool.

Mechanical Properties

Typical mechanical properties of press moulded laminates

Fibre Volume Fraction	40%	
Density	1.04 g/cm ³	
Tensile Modulus	8.1 GPa	ISO 527-4
Tensile Strength	64 MPa	ISO 527-4
Elongation	1.9%	ISO 527-4
Flexural Modulus	5.2 GPa	ISO 14125
Flexural Strength	66 MPa	ISO 14125

Data for sheet tested at ambient temperature.

Safety

Biotex Flax 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.

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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