

## Biotex Flax Technical Information



### Yarn

Linear Density	250tex 125-2000tex	Standard On request
Processing	Typical processes include filament winding and pultrusion, processed in the same way as glass fibre.	

### Fabrics

Woven Fabrics	2x2 twill 4x4 hopsack Others	Standard Standard On request
Non-Crimp Fabrics	Unidirectional +/-45 biaxial Others	Standard Standard On request
Fabric Weight	420-520gsm 250-800gsm	Standard (depending on weave style) On request
Fabric Width	1.25m Up to 3m	Standard On request (woven fabrics only)
Processing	Typical processes for include hand lay-up, vacuum infusion and RTM with standard resins or bio-based resins. Processing is carried out in the same way as with glass fibre.	

### Typical Properties

	UD flax- polyester laminate (0 dir)	Biaxial flax- polyester laminate (0 dir)	Woven flax- polyester laminate (0 dir)	
Density	1.30g/cm <sup>3</sup>	1.30g/cm <sup>3</sup>	1.24g/cm <sup>3</sup>	
Tensile Modulus	18.8GPa	8.7GPa	7.2GPa	(ISO 527-4)
Tensile Strength	174MPa	85MPa	68.3MPa	(ISO 527-4)
Tensile Elongation	1.5%	1.7%	2.5%	(ISO 527-4)
Flexural Modulus	15.1GPa	6.8GPa	4.0GPa	(ISO 14125)
Flexural Strength	196MPa	135MPa	97.4MPa	(ISO 14125)
Charpy Impact (flat)	TBC	TBC	28.0kJ/m <sup>2</sup>	(ISO 179-1 U)
Charpy Impact (edge)	TBC	TBC	27.7kJ/m <sup>2</sup>	(ISO 179-1 U)

*Data for laminates made from 30-33vol% Biotex flax fabrics and unsaturated polyester by the vacuum infusion process and tested at ambient temperature.*