



porcher greenlite


Renewable, Strong and Lightweight

HIGH PERFORMANCE RENEWABLE FABRICS
HIGHLY COMPATIBLE WITH BIO-BASED RESINS
EASY TO IMPREGNATE WITH STANDARD PROCESSES

porcher greenlite  is a new generation of high performance renewable reinforcements for the composites industry. These innovative materials are based on pure cellulose fibers. The combination of low density and superior mechanical properties allows biocomposites to be made on an excellent weight / performance basis. The new materials constitute a significant advancement in terms of quality, reproducibility, transparency and strength with respect to common bio-based solutions.



porcher greenlite  reinforcements are biodegradable and highly compatible with bio-based resins, making them suitable for the production of 100% bio-based composites on a large scale. With these new materials, PORCHER Industries demonstrates a strong commitment to developing renewable materials utilizing an eco-friendly process with minimal environmental impact.

porcher greenlite  fabrics can be processed using standard equipment with no modifications to the existing technology. PORCHER Greenlite reinforcements are available in various styles for a wide range of composites parts, including sporting goods and leisure applications.



PORCHER GREENLITE STANDARD PROPERTIES

FIBER PROPERTIES	<i>Properties</i>		<i>Units</i>	<i>Results</i>
	Tensile*	Strength	MPa	675
		Modulus	GPa	35
		Elongation at break	%	6.2
Density		kg/dm ³	1.50	

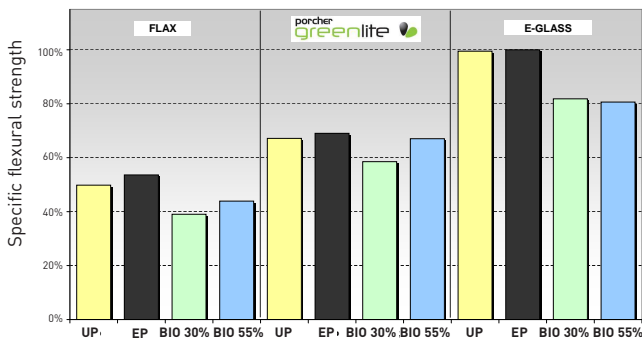
*Test conditions: 23°C, 50% R.H.

COMPOSITE PROPERTIES*	<i>Properties</i>	<i>Standards</i>	<i>Units</i>	<i>Results</i>	
	Tensile		ISO 527-4		
		Strength		MPa	150
		Modulus		GPa	10.5
	Elongation at break		%	5.4	
Flexural		ISO 14125			
	Strength		MPa	200	
	Modulus		GPa	10	
Interlaminar shear		ISO 14130			
	Strength		MPa	20	
Density		ISO 1183-1	kg/dm ³	1.28	

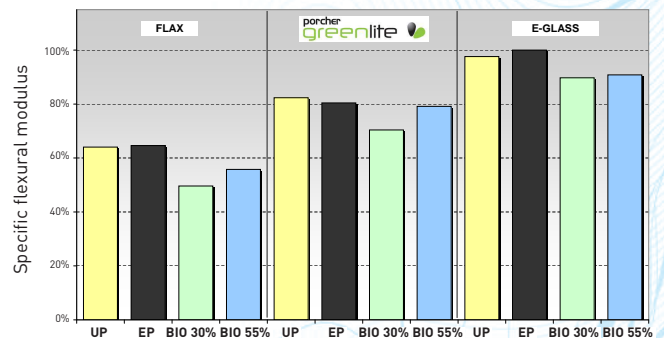
*Mechanical properties measured on [0°/90°] composite laminates with standard thermoset resins
Volume fiber fraction Vf = 40% / Weight fiber fraction Wf = 50%

COMPOSITE MATERIAL PERFORMANCES (with standard and bio-based thermosets)

Specific flexural strength*



Specific flexural modulus*



*Specific properties related to material density

UP = unsaturated polyester resin
EP = epoxy resin

BIO 30% = 30% bio-based epoxy resin
BIO 55% = 55% bio-based epoxy resin