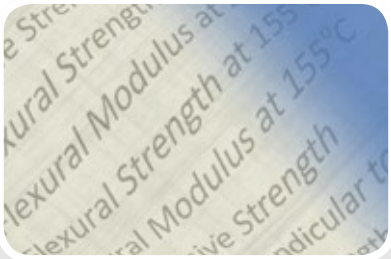
PCT Composite Products

PACTPLY™ C9011



FEATURES & BENEFITS

- Bidirectionally – reinforced - prepregs, Or BDP
- Available in rolls of 1” to 40” wide, up to 75 yards length. (Other roll lengths and can be made available to special order.)
- High Temp Resistance to 500°F (260°C)
- High Strength to Weight Performance
- PRESS CURE
  30 minutes at 300°F (149°C)
- POST CURE
  Four hours at 325° - 350°F (163°C - 177°C)
- OVEN CURE
  Two hours at 300°F (149°C) plus three hours at 350°F (177°C)
- Corrosion Resistant
- High Impact Strength

Power and Composite Technologies is proud to introduce Pactply™

Pactply™ C9011 is a non-woven continuous fiber reinforced epoxy resin composite available as a B-Staged prepreg or as fully cured laminates of various cross-sections and geometries. The high Tg epoxy resin system paired with the continuous E-glass rovings give Pactply™ excellent mechanical and thermal stability.

Pactply™ Bidirectionally-reinforced prepregs are a totally new and advanced line of ultra-high-quality composite materials.

Pactply™ offers outstanding structural performance in extremely demanding applications including: Automotive, Aerospace, Medical, Rail, Transit, Power Generation, Industrial and Military industries. We invite you to compare Pactply™ to Cytec’s® Cycom® 1009 and 3M’s Scotchply™.

DESCRIPTION

The continuous unidirectional E-glass reinforcement in Pactply™ is cross plied at 0 and 90 degrees rather than woven to achieve bidirectional strength. This process yields higher strengths than what can be achieved with other traditional bidirectional composites, due to maintaining tensioned, flat and untwisted fibers. Our Pactply™ binder is a high-temperature structural epoxy resin developed specifically for high service temperatures experienced by today’s composites.

Pactply has the ability to meet or exceed the most demanding of customer performance criteria for mechanical strength, dielectric strength, and flammability.

FIRE PROTECTION PANELS ■ FLOORING ■ LANDING STRUTS
COMPOSITE SPRINGS ■ HVAC SYSTEMS ■ ROTOR BLADES

pct POWER AND COMPOSITE TECHNOLOGIES LLC
Proven Composite Performance

Call our Sales Engineering staff with your most demanding applications.
We love a challenge.

ISO 9001:2008

www.pactinc.com

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PACTPLY™ C9011

Terms	Value	Units	Reference
Material Properties			
Glass Fiber	>60	%	ISO 1172
Density	2.1 ±.1	g/cm	IEC 60641-2
Average cured Thickness @ 14 PSI	0.016" (.40mm)	inches	
Average cured Thickness @ 32 PSI	0.014" (.35mm)	inches	
Average cured Thickness @ 50 PSI	0.013" (.33mm)	inches	
Physical Properties			
Width - Maximum -Trimmed	39.3 Inches (998mm)	inches	
Length - Maximum	75 Yards (68.5m)	yards	
Weight of Glass per Sq Yard	0.553 Lbs (.250kg)	pounds	
Resin Content (% by weight)	35 +/- 3%	%	
Mechanical Properties			
Tensile Strength at 23°C (73°F)	400	MPa	ISO 527
Flexural Strength at 23°C (73°F)	1000	MPa	ISO 178
Flexural Strength at 23°C (73°F)	4 weeks of aging at 180°C = 700 MPa	MPa	ISO 178
Flexural Modulus at 23°C (73°F)	60	GPa	ISO 178
Flexural Strength at 155°C (311°F)	620	MPa	ISO 178
Flexural Modulus at 155°C (311°F)	25	GPa	ISO 178
Flexural Strength at 180°C (356°F)	4 weeks of aging at 180°C = 600 MPa	MPa	ISO 178
Compressive Strength Perpendicular to Laminations	520	MPa	ISO 604
Compressive Strength Parallel to Laminations	400	MPa	ISO 604
Impact Strength	TBD	kJ/m	ISO 179-1
Shrinkage after molding, aged for 30 days at 180°C (356°C) Perpendicular	<0.5	%	ISO 2577
Shrinkage after molding, aged for 30 days at 180°C (356°C) Parallel	<0.2	%	ISO 2577
High Temp. Resistance/Glass Transition Temp.	260°C	Tg	IEC 216
ELECTRICAL PROPERTIES			
1-min-test voltage at 90°C in Oil	≥13.5 kV/mm	kV/mm	IEC 60243-1
ComparativeTracking Index (CTI)			IEC 60112
RECOMMENDED PROCESSING CONDITIONS Press Cure @ 150°C 30 Minutes Cure @ 175°C 2 Hours Post Cure @ 175°C 10 Hours Autoclave Cycle 30 -120PSI			

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