



# PYROFIL™ TR50S 12K

## Typical Fiber Properties

Tow Tensile	Strength	710 4,900	ksi MPa	JISR 7601
	Modulus	35 240	msi GPa	
Typical Density		0.066 1.82	lb.in <sup>3</sup> g/cm <sup>3</sup>	JISR 7601
Typical Yield	12K	620 800	yds/lb mg/m	JISR 7601

## Typical Mechanical Properties

Tensile Properties	0°	Strength*	430 2950	ksi MPa	ASTM D3039 / Vf=60.0%
		Modulus*	20.6 142	msi GPa	ASTM D3039 / Vf=60.0%
	90°	Strength	11 79	ksi MPa	ASTM D3039 / Vf=56.0%
		Modulus	1.3 9	msi GPa	ASTM D3039 / Vf=56.0%
Compressive Properties	0°	Strength*	230 1600	ksi MPa	SRM 1-88 / Vf=60.0%
		Modulus*	18.7 130	msi GPa	SRM 1-88 / Vf=60.0%
Flexural Properties	0°	Strength	430 3000	ksi MPa	ASTM D790 / L/d=40 / Vf=60.0%
		Modulus	19 130	msi GPa	ASTM D790 / L/d=40 / Vf=60.0%
	90°	Strength	20 140	ksi MPa	ASTM D790 / L/d=16 / Vf=56.0%
		Modulus	1.3 9	msi GPa	ASTM D790 / L/d=16 / Vf=56.0%
Short-Beam Shear	Strength	13 90	ksi MPa	ASTM D2344 / L/d=4 / Vf=56.0%	

- 250F Epoxy Prepregs
- Resin: Mitsubishi Rayon #340 resin system
- Tensile and compressive properties are normalized to 60% fiber volume

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