



# PYROFIL™ HR40 12K

## Typical Fiber Properties

Tow Tensile	Strength	640 4,410	ksi MPa	JISR 7601
	Modulus	57 395	msi GPa	
Typical Density		0.066 1.82	lb.in <sup>3</sup> g/cm <sup>3</sup>	JISR 7601
Typical Yield	12K	825 600	yds/lb mg/m	JISR 7601

## Typical Mechanical Properties

Tensile Properties	0°	Strength	423 2920	ksi MPa	ASTM D3039 / 0°8ply
		Modulus	33.1 228	msi GPa	ASTM D3039 / 0°8ply
	90°	Strength	8.7 60	ksi MPa	ASTM D3039 / 0°16ply
		Modulus	1.04 7.2	msi GPa	ASTM D3039 / 0°16ply
Compressive Properties	0°	Strength	194 1340	ksi MPa	ASTM D3039 / 0°16ply
		Modulus	28.5 197	msi GPa	ASTM D3039 / 0°16ply
	90°	Strength	24.5 169	ksi MPa	ASTM D3410 / 0°20ply
		Modulus	1.16 8.0	msi GPa	ASTM D3410 / 0°20ply
Flexural Properties	0°	Strength*	278 1920	ksi MPa	ASTM D790 / 0°16ply, L/D=32, Vf=61%
		Modulus*	29.6 204	msi GPa	ASTM D790 / 0°16ply, L/D=32, Vf=61%
	90°	Strength	16 110	ksi MPa	ASTM D790 / 0°16ply, L/D=16, Vf=61%
		Modulus	1.1 7.0	msi GPa	ASTM D790 / 0°16ply, L/D=16, Vf=61%
ILSS	Strength	12 83	ksi MPa	ASTM D2344 / 0°16ply, L/D=4, Vf=59%	

- 250F Epoxy Prepregs
- Resin: Mitsubishi Rayon #350 resin system
- Tensile and compressive properties are normalized to 60% fiber volume

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