

## Mechanical Properties of PYROFIL™ Unidirectional Composite

**Product Description : MRX350G125S**

Carbon : MR 60H

Resin : #350

Measurement Condition : Temp 23±2°C、50±5%RH

FAW : 125g/m<sup>2</sup>

Resin Content : 33 weight %

Curing Condition : Autoclave Curing for 60 minutes at 80°C and 90 minutes at 130°C  
temp elevating rate:2°C/min  
pressure 0.8MPa (Gauge)

Mechanical Properties	Unit	Value	Method
<b>Tensile Properties</b>			ASTM D 3039
Unidirectional Strength	MPa	3182	
Modulus	GPa	166	
Strain	%	1.7	
Poisson Ratio	—	0.33	
Transverse Strength	MPa	76	
Modulus	GPa	8.0	
Strain	%	1.0	
Poisson Ratio	—	0.02	
<b>Compressive Properties</b>			SACMA SRM 1R
Unidirectional Strength	MPa	1469	
Modulus	GPa	147	
Poisson Ratio	—	0.36	
Transverse Strength	MPa	181	ASTM D 3410
Modulus	GPa	9.1	
Poisson Ratio	—	0.02	
<b>Shear Properties</b>			ASTM D 3518 Modulus Range : 500-1500μ
In-Plane Shear Strength	MPa	125	
Shear Modulus	GPa	4.0	
Interlaminar Shear Strength	MPa	86	ASTM D 2344 L/D=4

Note) Unidirectional properties of tension and compression are calculated at 60% of fiber volume fraction of laminate.

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