

## Nanocyl PREGCYL™ NC R2HM-01 Pre-impregnated UD/Fabric Carbon Fibers

Category : Carbon , Carbon Fiber

**Material Notes:**

PREGCYL™ NC R2HM-01 is a pre-impregnated material based on our EPOCYL NC R2HM01 formulated epoxy resin system modified with our own Carbon Nanotubes (CNT) and specifically developed to enhance the mechanical properties of the final composite parts. Applications: High performance composite parts Automotive (bumpers and other structural parts) Marine, especially sailing boats (structural outer shell in carbon fiber composite, masts and other generic structural parts) Industrial parts (rollers, doctor-blades and wind-mill blades) Sporting equipments (bike frames, hockey sticks, tennis rackets, skis and golf shafts) Aerospace (structural parts and interiors) Advantages High toughness (over 1200j/m<sup>2</sup> in some configurations), Low CTE, 120 degrees C Tg, Easy and ready to use, Higher uniformity of temperature during curing (avoids hot-spots) Examples of fibers and fabrics available 200 g/m<sup>2</sup> plain and twill 2/2 weave, 3K; 45% resin content 370 g/m<sup>2</sup> Harness 5 weave, 6K; 45% resin content 400 g/m<sup>2</sup> twill 2/2 weave, 12K; 45% resin content 600 g/m<sup>2</sup> twill 2/2 weave, 12K; 45% resin content 150 g/m<sup>2</sup> UD; 37% resin content 100 g/m<sup>2</sup> UD; 37% resin content Properties of the cured and fiber reinforced composite The values given are for pressed laminates comprising 8 layers of unidirectional (UD) carbon fibers high tenacity (Tenax 12K HTS 5631) fo 230 g/m<sup>2</sup>. Fiber volume fraction: 58-60%. Curing cycle: 1h at 120°C + 2h at 140°C combined with low pressure.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Nanocyl-PREGCYL-NC-R2HM-01-Pre-impregnated-UDFabric-Carbon-Fibers.php](http://www.lookpolymers.com/polymer_Nanocyl-PREGCYL-NC-R2HM-01-Pre-impregnated-UDFabric-Carbon-Fibers.php)

Mechanical Properties	Metric	English	Comments
Compressive Strength	553 MPa	80200 psi	ASTM D3410

Thermal Properties	Metric	English	Comments
CTE, linear	29.7 μm/m-°C	16.5 μin/in-°F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	4000 ohm-cm	4000 ohm-cm	

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