

PRODUCT NEWS



FOR IMMEDIATE RELEASE:

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Triton Introduces High Thermal Conductivity Carbon Composites

Chelmsford, MA - November 7, 2009 – Triton introduces Cryo-Carbon™, a new carbon-carbon (C-C) composite material with increased thermal conductivity for your extreme heat dissipation applications. Cryo-Carbon™ is comprised of 70% graphite flake which provides two-dimensional conductivity in excess of 550 W/mK. Unlike pitch-based fiber composites which only provide conductivity in the axial direction of the filament, conductive flake offers two-dimensional



Cryo-Carbon™ C-C Fabricated Part

conductivity, providing increased thermal performance throughout the composite X-Y plane -- 0 thru 360 degrees. Combined with a high thermally conductive graphitic matrix, a C-C composite which outperforms fiber based 2D materials in thermal performance is produced.

Additionally, Cryo-Carbon™ composites can be molded into continuous complex shapes with conductive paths oriented X-Y, X-Z or Y-Z. The composites are robust and can be machined to accommodate interface tolerances for heat sinks and other heat dissipative devices.

Key Features:

- High Thermal Conductivity
- Two Dimensional
- Lightweight
- Can be Molded into Complex Shapes
- Lower Material Costs (graphite flake \$\$ << than fiber)
- Ideal for Heat Dissipation Applications

Property Comparison between C-C and other High Temperature Materials

Property	Units	Pure Aluminum	Oxygen Free Copper	K1100 C-C 0/90	Triton's Cryo-Carbon
Thermal Conductivity	W/m °K (x,y,z)	210 Isotropic	392 Isotropic	350,350, 45	550, 550, 20
Density	g/cc	2.7	8.91	1.90	1.75
Specific Conductivity	W m^(kg °K)*10^-3	78	44	184	314

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