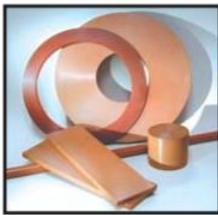




## TYPICAL PROPERTIES

# VESPEL® SCP-5000



### ISO SHAPES HIGH-STRENGTH APPLICATION

DuPont™ Vespel® SCP-5000 is designed for those demanding applications that require even more toughness, thermal stability and chemical resistance than ST-2010. SCP-50094 has been put to the test in ultra-high-stress environments like aircraft engines. So, it's ready for just about any design challenge. But for better plasma resistance, dimensional stability and chemical resistance than SP-1, check out SCP-5000.

SCP-5000 ISO*				
MECHANICAL		TEST METHOD	SI UNITS	ENGLISH UNITS
TENSILE STRENGTH	23°C/73°F 260°C/500°F	ASTM D-1708	160 MPa 62 MPa	23.4 Kpsi 8.99 Kpsi
ELONGATION AT BREAK	23°C/73°F 260°C/500°F	ASTM D-1708	7.0% >20%	7.0% >20%
COMPRESSIVE STRESS @ 1%	23°C/73°F 260°C/500°F	ASTM D-695	59.5 MPa 32.2 MPa	8.67 Kpsi 4.67 Kpsi
COMPRESSIVE STRESS @ 10%	23°C/73°F 260°C/500°F	ASTM D-695	230 MPa 73.6 MPa	33.3 Kpsi 10.7 Kpsi
COMPRESSIVE MODULUS	23°C/73°F 260°C/500°F	ASTM D-695	9,150 MPa 3,700 MPa	1,330 Kpsi 536 Kpsi
FLEXURAL STRENGTH	23°C/73°F 260°C/500°F	ASTM D-790	247 MPa 97 MPa	36 Kpsi 14.1 Kpsi
FLEXURAL MODULUS	23°C/73°F 260°C/500°F	ASTM D-790	5,740 MPa 3,010 MPa	836 Kpsi 436 Kpsi
SURFACE HARDNESS	23°C/73°F	ASTM D-785 Rockwell E	94-95	94-95
THERMAL				
COEFFICIENT OF LINEAR THERMAL EXPANSION				
Parallel	23-300°C/ 73-572°F	ASTM D-696	44 m <sup>3</sup> /m °C	24 in. <sup>3</sup> /in. °F
Perp.	23-300°C/ 73-572°F	ASTM D-696	47 m <sup>3</sup> /m °C	26 in. <sup>3</sup> /in. °F
ELECTRIC				
DIELECTRIC CONSTANT @ 10 <sup>4</sup> Hz	23°C/73°F	ASTM D-150	3.31	3.31
DIELECTRIC CONSTANT @ 10 <sup>6</sup> Hz	23°C/73°F	ASTM D-150	3.31	3.31
DISSIPATION FACTOR @ 10 <sup>4</sup> Hz	23°C/73°F	ASTM D-150	0.0010	0.0010
DISSIPATION FACTOR @ 10 <sup>6</sup> Hz	23°C/73°F	ASTM D-150	0.0010	0.0010
VOLUME RESISTIVITY	23°C/73°F	ASTM D-257	10 <sup>14</sup> Ohm-m	10 <sup>14</sup> Ohm-m
SURFACE RESISTIVITY	23°C/73°F	ASTM D-257	10 <sup>15</sup> Ohm	10 <sup>15</sup> Ohm
OTHER PROPERTIES				
SPECIFIC GRAVITY	23°C/73°F	ASTM D-792	1.43	1.43
WATER ABSORPTION @ 100%, 24hrs (Weight Change)		ASTM D-570	0.08%	0.08%

\*Isostatically Compressed Shapes

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