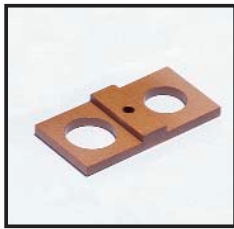


TYPICAL PROPERTIES

VESPEL® TP- 8212



MECHANICAL		TEST METHOD	SI UNITS	ENGLISH UNITS
TENSILE STRENGTH	23°C/73°F 150°C/302°F	ASTM D-638	165 MPa 106 MPa	23,900 psi 15,400 psi
TENSILE ELONGATION	23°C/73°F 150°C/302°F	ASTM D-638	3% 4%	3% 4%
FLEXURAL STRENGTH	23°C/73°F 150°C/302°F	ASTM D-790	241 MPa 173 MPa	35,000 psi 25,000 psi
FLEXURAL MODULUS	23°C/73°F 150°C/302°F	ASTM D-790	9.5 GPa 8.0 GPa	1,400,000 psi 1,200,000 psi
COMPRESSIVE STRENGTH	23°C/73°F 150°C/302°F	JIS K-7208	188 MPa 88 MPa	27,300 psi 12,800 psi
NOTCHED IZOD 3.175 mm/1/8 in.	23°C/73°F	ASTM D-256	120 J/m	2.2 ft. lb./in.

ELECTRICAL		TEST METHOD	SI UNITS	ENGLISH UNITS
DIELECTRIC CONSTANT @ 1 KHz		ASTM D-150	3.8	3.8
DIELECTRIC CONSTANT @ 1 MHz		ASTM D-150	3.7	3.7
DISSIPATION FACTOR @ 1 KHz		ASTM D-150	0.0012	0.0012
DISSIPATION FACTOR @ 1 MHz		ASTM D-150	0.0036	0.0036
SURFACE RESISTIVITY		ASTM D-257	E16 Ohms	E16 Ohms

THERMOPLASTIC PARTS FOR HIGH-TEMPERATURE APPLICATIONS

VespeL® TP-8212 is a glass filled thermoplastic polyimide for use in high-temperature environments. This grade offers a unique balance of mechanical and thermal properties while exhibiting outstanding electrical insulation performance, a low coefficient of thermal expansion and exceptional resistance to chemicals and radiation.

As part of the VespeL® parts and shapes product line, injection-molded VespeL® TP-8212 parts comply with the highest quality standards required in the industry.

THERMAL		TEST METHOD	SI UNITS	ENGLISH UNITS
HDT @ 1.8 MPa (264 psi)		ASTM D-648	245°C	473°F
CTE (23-150°C/73-302°F) FLOW DIRECTION		ASTM E-228	1.7x10 ⁻⁵ cm/cm/°C	0.9x10 ⁻⁵ in./in./°F
CTE (23-150°C/73-302°F) TRANSVERSE DIRECTION		ASTM E-228	5.3x10 ⁻⁵ cm/cm/°C	2.9x10 ⁻⁵ in./in./°F
THERMAL CONDUCTIVITY		ASTM C-177	0.34 W/m K	4.52 BTU in./hr. ft. ² °F
SPECIFIC HEAT @ 23°C/73°F		DSC	0.23 Cal/g °C	0.23 BTU/lb. °F
SPECIFIC HEAT @ 100°C/212°F		DSC	0.23 Cal/g °C	0.23 BTU/lb. °F
SPECIFIC HEAT @ 300°C/572°F		DSC	0.32 Cal/g °C	0.32 BTU/lb. °F

OTHER PROPERTIES		TEST METHOD	SI UNITS	ENGLISH UNITS
SPECIFIC GRAVITY		ASTM D-792	1.56	1.56
WATER ABSORPTION (24 hrs. @ 23°C/73°F)		ASTM D-570	0.23%	0.23%



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Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement."