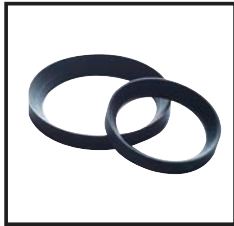


TYPICAL PROPERTIES

VESPEL® CR- 6200

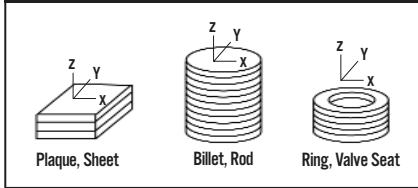


RANDOMLY ORIENTED FIBERS FOR CHEMICALLY RESISTANT SHAPES

Vespel® CR-6200 is a carbon fiber-filled thermoplastic fluoropolymer designed for use in hostile chemical environments. Due to its low creep and high thermal resistance, Vespel® CR-6200 often excels where other chemically resistant plastics fail. This makes Vespel® CR-6200 particularly well suited for seals, wear rings and other components used in a variety of devices and operating conditions.

The fiber reinforcement contained in CR-6200 has less x-y plane orientation than the fibers of CR-6100. Consequently, CR-6200 mechanical strengths are generally lower than x-y strengths of CR-6100, and the CR-6200 x-y and z-direction strengths are more comparable to each other and are superior to the z-direction properties of CR-6100.

NOMENCLATURE



MECHANICAL

	TEST METHOD	SI UNITS	ENGLISH UNITS
ULTIMATE TENSILE STRENGTH (x-y plane)	ASTM D-3039	110 MPa	16 ksi
TENSILE MODULUS (x-y plane)	ASTM D-3039	10,000 MPa	1,500 ksi
ULTIMATE FLEXURAL STRENGTH (x-y plane)	ASTM D-790	121 MPa	17.5 ksi
FLEXURAL MODULUS (x-y plane)	ASTM D-790	9,000 MPa	1,300 ksi
ULTIMATE COMPRESSIVE STRENGTH (x-y plane)	ASTM D-695	81 MPa	11.8 ksi
COMPRESSIVE MODULUS (x-y plane)	ASTM D-695	3,700 MPa	536 ksi
ULTIMATE COMPRESSIVE STRENGTH (z-direction)	ASTM D-695	119 MPa	17.3 ksi
COMPRESSIVE MODULUS (z-direction)	ASTM D-695	1,700 MPa	244 ksi

THERMAL

	TEST METHOD	SI UNITS	ENGLISH UNITS
SOFTENING POINT	Thermal Mechanical Analysis	287°C	550°F
THERMAL EXPANSION COEFFICIENT (x-y plane) (RT–500°F/RT–260°C)	ASTM D-696	80x10 ⁻⁶ m/m/°C	44x10 ⁻⁶ in./in./°F
THERMAL EXPANSION COEFFICIENT (z-direction) (RT–300°F/RT–149°C)	ASTM D-696	112x10 ⁻⁶ m/m/°C	62x10 ⁻⁶ in./in./°F
THERMAL EXPANSION COEFFICIENT (z-direction) (300–400°F/149–204°C)	ASTM D-696	194x10 ⁻⁶ m/m/°C	108x10 ⁻⁶ in./in./°F
THERMAL EXPANSION COEFFICIENT (z-direction) (400–500°F/204–260°C)	ASTM D-696	437x10 ⁻⁶ m/m/°C	243x10 ⁻⁶ in./in./°F

OTHER PROPERTIES

	TEST METHOD	SI UNITS	ENGLISH UNITS
SPECIFIC GRAVITY	ASTM D-792	2.05 gr/cm ³	0.074 lbs./cu. in.
HARDNESS	ASTM D-2240	–	–
WATER ABSORPTION (24 hrs. at 23°C)	ASTM D-5229	–	–

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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."