DRAKE CRYODYN™ CT-200

Cryogenic Polymer

DESCRIPTION

Drake CryoDyn™ CT-200 is a polyketone-based polymer that is suitable to perform in aggressive cryogenic sealing environments. It is ideal in dynamic and static sealing applications at ultra-low temperatures., and performs effectively from cryogenic to 220°C (428°F)+. It additionally has excellent chemical resistance and wear properties.

TYPICAL APPLICATIONS:

- Vale seats and seals
- Shaft components
- Compressor components
- Back-up rings

Material Notes: *Made exclusively from Victrex CT™ 200 resin.*

EXTRUDED SHAPES PROPERTIES

PHYSICAL PROPERTIES	METRIC	IMPERIAL	METHODS
Specific Gravity	1.4 g/cc	1.4 lb/in^3	ASTM D792
MECHANICAL PROPERTIES[1]			
Hardness, Shore D		81	ASTM D2240
Tensile Strength, 23°C	73 MPa	10,6000 PSI	ASTM D638
Tensile Strength, -196°C	138 MPa	20,000 PSI	ASTM D638
Elongation at Break**	10-40%	10-14%	ASTM D638
Flexural Strength, 23°C	121 MPa	17,600 PSI	ASTM D790
Flexural Strength, -196°C	349 MPa	50,600 PSI	ASTM D790
Flexural Modulus, 23°C	3.2 GPa	452,000 PSI	ASTM D790
Flexural Modulus, -196°C	4.9 GPa	705,000 PSI	ASTM D790
Compressive Strength, 23°C	117 MPa	17,000 PSI	10% Def.; ASTM D695
Compressive Strength, -196°C	250 MPa	36,300 PSI	ASTM D695
Izod Impact (notched)	36.8 J/M	0.7 ft*lbs/in	ASTM D256 Type A
THERMAL PROPERTIES			
Glass Transition Temp./T_g	150°C	302° F	ASTM D3418
CLTE, 23°C	56.0 ppm/°C	31.1 ppm/°F	E831 TMA
CLTE, -196°C	65.0 ppm/°C	36.1 ppm/°F	DIN 51909
Thermal Conductivity, 23°C	0.25 W/m*K	1.73 Btu*in/hr*ft^2*°F	ASTM F433
Thermal Conductivity, -165°C	0.15 W/m*K	1.04 Btu*in/hr*ft^2*°F	ASTM F433

[1]The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated from test specimens injection molded under optimum conditions. Drake's extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity as a result of processing, and fiber alignment inherent in all reinforced plastic shapes, regardless of process. For additional information on the effects of fiber alignment, see Drake Fiber Orientation Diagram, available on the Resource page of our website.