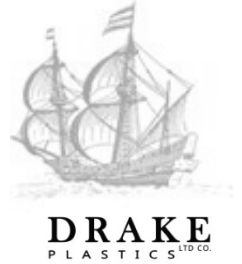




# Product Datasheet

## PEEK KT820NT

*Unfilled PEEK, Extruded Shapes*



PEEK unfilled is recognized as having the best balance of chemical resistance, wear resistance and heat resistance among all thermoplastics. It is FDA compliant making it suitable for many direct food contact and medical application as well as electrical and life science parts in which purity is critical. Drake's KT820NT is melt filtered and fully stress relieved enhancing both the cleanliness and stability of machined parts. PEEK's exceptional resistance to chemicals, temperature reliability and compressive strength make it suitable for

- Seals and valve components
- Back-ups rings
- High temperature Insulators

**Material Notes:** KT820 NT is Solvay's high viscosity equivalent to Victrex 450G and Evonik's Vestakeep 4000

Physical Properties	Metric	English	Methods
Specific Gravity	1.30 g/cc	0.047 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.1 %	0.1 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	0.5 %	0.5 %	Immersion; ASTM D570(2)

### Mechanical Properties\*

Hardness, Rockwell M	100	100	ASTM D785
Hardness, Rockwell R	125	125	ASTM D785
Hardness, Shore D	85	85	ASTM D2240
Tensile Strength, Ultimate	103 MPa	15,000 psi	ASTM D638
Elongation at Break	20%	20 %	ASTM D638
Tensile Modulus	4140 MPa	600,000 psi	ASTM D638
Flexural Modulus	4140 MPa	600,000 psi	ASTM D790
Flexural Yield Strength	172 MPa	25,000 psi	ASTM D790
Compressive Strength	138 MPa	20,000 psi	10% Def.; ASTM D695
Compressive Modulus	3500 MPa	500,000 psi	ASTM D695
Izod Impact (notched)	63 J/M	1.2ft-lbs/in	ASTM D256 Type A

### Thermal Properties

Melt Point	340°C	644°F	ASTM D3418
Heat Deflection Temp (264 psi)	160°C	320°F	ASTM D648
Coefficient of Linear Thermal Expansion	4.68x10 <sup>-5</sup> C <sup>-1</sup>	2.6x 10 <sup>-5</sup> F <sup>-1</sup>	ASTM E831

\*The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated off injection molded test specimens run under near perfect conditions. Drake's extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity resulting from 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 Resources page of our website.