

DATASHEET

KETRON PEEK TX

Ketron PEEK TX Polyetheretherketone PEEK is an internally lubricated, EU 10/2011 and FDA compliant grade that offers improved wear and frictional performance over virgin PEEK. Often favoured for food and beverage processing, and pharmaceutical applications where extreme performance temperatures, critical tolerances, or low frictional heat are required. Ketron PEEK TX components extend wear and part life by lowering the coefficient of friction over standard PEEK.

Applications

- Structural Parts
- Bushings
- Bearings
- Seals
- Pump Wear Rings

Availability

- Colour – Blue
- Type – Sheets, Rods & Tubes
- Regularly produced in a wide variety of thicknesses

Typical Properties

General Properties	Method	Unit	Test Result
Physical Properties			
Colour	-	-	Blue
Density	ISO 1183-1	g/cm ²	1.39
Water Absorption:			
- After 24h immersion in water of 23°C	ISO 62	mg	0.06
- At saturation in water of 23°C	-	%	0.4
Thermal Properties			
Melting Temperature (DSC, 10°C/min)	ISO 11357 – 1/-3	°C	340
Glass Transition Temperature (DSC, 10°C/min)	ISO 11357 – 1/-2	°C	-
Thermal Conductivity at 23°C	-	W/(K.m)	0.25
Coefficient of Linear Thermal Expansion:			
- Average value between 23 and 100°C	-	W/(K.m)	55
- Average value between 23 and 150°C	-	W/(K.m)	60
- Average value above 150°C	-	W/(K.m)	140
Temperature of Deflection Under Load:			
- Method A: 1.8 MPa	ISO 75-1/-2	°C	155
Max Allowable Service Temperature in Air:			
- Continuously: for 5,000 to 20,000h	-	°C	250

Minimum Service Temperature	-	°C	-20
Flammability:			
- According to UL94 (3/6mm thickness)	-	-	V-0
Mechanical Properties			
Tension Test:			
- Tensile Strength	ISO 527-1/-2	MPa	90
- Tensile Strain at Yield	ISO 527-1/-2	%	5
- Tensile Strain at Break	ISO 527-1/-2	%	6
- Tensile Modulus of Elasticity	ISO 527-1/-2	MPa	3750
Flexural Test:			
- Flexural Strength	ISO 178	MPa	-
- Flexural Modulus of Elasticity	ISO 178	MPa	-
Compression Test:			
- Compressive Stress @ 1/2/5% Nominal Strain	ISO 604	MPa	31/61/120
Charpy Impact Strength - Unnotched	ISO 179-1-1eU	kJ/m ²	30
Charpy Impact Strength - Notched	ISO 179-1-1eU	kJ/m ²	3
Rockwell Hardness	ISO 2039-2	-	97
Dynamic Coefficient of Friction	ISO 7148-2(15)	-	0.25-0.35
Wear Rate	ISO 7148-2(15)	Um/km	9
Electrical Properties			
Electric Strength	EC 60243-1	kV/mm	22
Volume Resistivity	IEC 60093	Ohm.cm	10E13
Surface Resistivity	IEC 60093	Ohm	10E12
Relative Permittivity – at 1MHz	IEC 60250	-	3.2
Dielectric Dissipation Factor – at 1 MHz	IEC 60250	-	0.002