PE90TN10 Datasheet

MIL-P-46183 Compliant, 100% Virgin PEEK, 90 Shore D

Overview

PE9TN10 is Canyon's MIL-P-46183 Compliant, 100% virgin, 90 Shore D, tan PEEK. PE90TN10 is offers good chemical resistance, high & low temperature performance, and fantastic dynamic resilience.

Features & Benefits

- MIL-P-46183 Compliant
- 100% virgin PEEK material
- Excellent heat resistance & high temp stability
- Extreme abrasion resistance and dynamic resilience
- Excellent chemical resistance
- High strength and stiffness
- Low thermal expansion

Recommended Applications

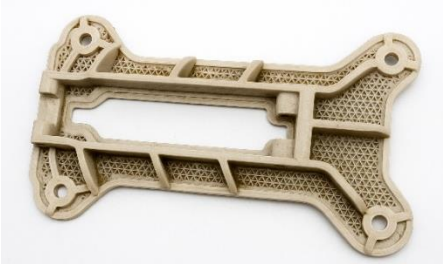
- Backup rings
- Bearings & bushings
- Mechanical components
- High Temp Chemical Processing

Service Temperature

- -75°C to 260°C (-100°F to 500°F)

Specification

- MIL-P-46183 Compliant



Test Data

Table 1. General Physical Properties	
Color	Tan
Hardness, Shore D [D2240]	90
Tensile Strength, psi (MPa) [D1708]	13,053 (90)
Tensile Strength @ 200°C, psi (MPa)	7,252 (50)
Flex Modulus @ 200°C, GPa	15
Elongation @ 200°C, %	15
Water Absorption - 24hrs @ 25°C, % [ISO 62]	0.15
Distortion Temp, °C (°F) [ISO 75-F]	163 (325)
Flammability, UL 94, V-0 @ mm	1.5
Glass Transition, Tg, °C	143
Smoke Density, Flame, Dmax	≤25
Smoke Density, non-Flame, Dmax	≤5
Oxygen index, %	≥35
Volume resistivity, Ω·cm	10^{15}–10^{16}

Table 2. Coefficient of Friction	
Friction Coefficient, ASTM D3702	0.30 to 0.38

Table 3. Bending & Compressive Properties	
Bending Strength, psi [ISO 178]	21,755
Compressive Strength, psi [ISO 178]	17,114

Table 4. Electrical Properties	
Dielectric Strength, IEC 60243-1, kV/mm	18
Dielectric Constant, IEC 60250	3.2
Surface Resistivity, IEC 90093, Ω	10^{15}

The information provided in this data sheet is based on test results and our combined expertise. This data sheet is intended to serve only as a reference and is not considered a guarantee.

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