

# VICTREX® PEEK 450PF PEEK Powder

**Grade:** VICTREX® PEEK 450PF

**Formula:** PEEK

**Mean Particle Size:** 50µm

**Weight:** 500g

**CAS Number:** 29658-26-2

**UOM Code:** 024-815-00

**SKU:** 1000002928-group

**Product Code:** EK30-PD-000110

## Material Properties for Polymers

### Chemical Resistance

Element	Value
Acids - concentrated	Good-Poor
Acids - dilute	Good
Alcohols	Good
Alkalis	Good
Aromatic hydrocarbons	Good
Greases and Oils	Good
Halogenated Hydrocarbons	Good
Halogens	Good-Poor
Ketones	Good-Poor

### Mechanical Properties

Element	Value
Coefficient of friction	0.18
Hardness - Rockwell	M99
Poisson's ratio	0.4
Elongation at break( % )	50
Tensile modulus( GPa )	3.7-4
Izod impact strength( J m <sup>2</sup> )	85
Tensile strength( MPa )	70-100

## Electrical Properties

Element	Value
Dielectric constant @ 1kHz	3.2-3.3@50Hz-10Khz
Dissipation factor @ 1MHz	0.003
Dielectric strength( kV mm <sup>-1</sup> )	190@50μm
Volume resistivity( Ohmcm )	10 <sup>12</sup> -10 <sup>14</sup>

## Physical Properties

Element	Value
Flammability	V-0 @ 1.5mm
Radiation resistance	Good
Resistance to Ultra-violet	Fair
Limiting oxygen index( % )	35
Water absorption - equilibrium( % )	0.5
Water absorption - over 24 hours( % )	0.1-0.3
Density( gcm <sup>-3</sup> )	1.26-1.32

## Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa( C )	260
Heat-deflection temperature - 1.8MPa( C )	160
Upper working temperature( C )	250
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	1340
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	0.25@23°C
Coefficient of thermal expansion( x10 <sup>-5</sup> K <sup>-1</sup> )	47-108