

P5035 is a proprietary lubricated PEEK (polyetheretherketone) material. This material is designed for wear rings, rider bands and piston rings in reciprocating compressors for use in lubricated or non-lubricated conditions.

Physical Properties

	ASTM Method	Typical Values
Specific Gravity	D792	1.41 gr/cm ³
Water Absorption (24 hrs. @73.4° F)	D570	0.15%
Color	N/A	Black

Mechanical Properties

	ASTM Method	Typical Values
Tensile Strength	D1708	11000 psi
Tensile Elongation	D1708	3.6%
Flexural Strength	D790	21000 psi
Flexural Modulus	D790	800000 psi
Compressive Strength	D695	18100 psi
Compressive Modulus	D695	500000 psi
Impact Strength (Izod, notched)	D256	0.8 ft-lb/in
Hardness	Shore D	86

Tribological Properties

	ASTM Method	Typical Values
Coefficient of Friction - Static	D3702	0.35
Coefficient of Friction - Dynamic	D3702	0.29
Wear Rate (PV: 20,000 psi-fpm)	D3702	5.5 pin/min

Thermal Properties

	ASTM Method	Typical Values
Coefficient of Linear Thermal Expansion (78-400° F)	D696	3710 -6/° F
Heat Deflection Temperature (@264 psi)	D648	530° F
Glass Transition Temperature (T _g)	D3418	289° F
Continuous Service Temperature (Max @> no load)		480° F
Melting Point		644 ° F

Electrical Properties

	ASTM Method	Typical Values
Volume Resistivity	D257	10 ¹⁰ ohm-cm
Dielectric Strength	D149	KV/mm ²
Dielectric Constant	D150	Hz, 200° C