

# MATERIAL DATA SHEET

## 05-188

05-188 is a PEEK-based polymer alloy developed for extreme service in both lubricated and oil-free gas compressors. The unique self-lubricating properties of 05-188 allow its successful application as piston, rider, and rod rings in high-pressure oil-free compressors, including those handling “bone-dry” gases.

Properties	Value		ASTM Method
<b>Tensile Strength</b>	5,000 psi	34.4 MPa	D638
<b>Elongation</b>	1.0%		D638
<b>CTE</b>	$2.2 \times 10^{-5}/^{\circ}\text{F}$	$4.0 \times 10^{-5}/^{\circ}\text{C}$	D696
<b>Density</b>	.054 lb/in <sup>3</sup>	1.5 g/cm <sup>3</sup>	D792
<b>Hardness</b>	80 Shore D		D2240