

DATA SHEET

PPS

Unfilled Extruded Polyphenylene Sulfide

PROPERTY	UNITS	VALUE
MECHANICAL		
Specific Gravity	-	1.35
Tensile Strength	psi	13,500
Tensile Modulus	psi	500,000
Elongation (at break)	%	15
Flexural Strength	psi	21,000
Flexural Modulus	psi	575,000
Compressive Strength	psi	21,500
Hardness, Rockwell	-	M95
Coefficient of Friction (Dry vs. Steel)	-	.40
Limiting PV (with 4:1 safety factor)	psi x fpm	4,000
THERMAL		
Coefficient of Linear Thermal Expansion	in/in/F	2.80×10^{-5}
Heat Deflection Temperature (264 psi)	F	250
Glass Transition Temperature	F	230
Continuous Service Temperature	F	425
Thermal Conductivity	BTU/in/hr.ft.F	2.00
ELECTRICAL		
Dielectric Strength	volts/mil	540
Volume Resistivity	ohm-cm	10^{16}
OTHER		
Water Absorption, Immersion, 24 hrs.	% by wt.	.01
Water Absorption, Immersion, Saturation	% by wt.	.03

ENGINEERING NOTES:

- * No known solvents below 400 degrees F.
- * Lowest moisture absorption of all HPMS.
- * Low level of impurities.
- * Alternative to PEEK at lower temperatures.
- * Relatively poor abrasion resistance.