

RÖCHLING datasheet

SUSTATRON | 2009

SUSTATRON PPS

SUSTATRON PPS (Polyphenylene Sulphide) is a semi-crystalline high-performance plastic that performs exceptionally well at high temperatures and is virtually unaffected by harsh chemicals. This product has a low coefficient of thermal expansion, very low moisture absorption and is inherently V-O flame rated. These outstanding properties, combined with tight dimensional stability makes **SUSTATRON PPS** an ideal choice for machined components in the electrical and semiconductor industries.

Product Features:

- ⇒ Continuous use temperature of 425° F
- ⇒ Inherently V-0 flame rated
- ⇒ Outstanding chemical resistance even at high temperatures
- ⇒ Excellent dimensional stability
- ⇒ Exceedingly high flexural strength
- ⇒ Very high compressive strength
- ⇒ Excellent insulative material
- ⇒ Superior creep characteristics

Typical Properties of Stock Shapes

Property	Units	Test Method	Value Natural
Specific Gravity	-	ASTM D 792	1.35
Water Absorption 24 hrs	%	ASTM D 570	0.01
Water Absorption Saturation	%	ASTM D 570	0.03
Flammability	-	UL 94	V-0
Tensile Strength	psi	ASTM D 638	13,000
Elongation	%	ASTM D 638	15
Modulus	psi	ASTM D 638	480,000
Flexural Strength	psi	ASTM D 790	21,000
Modulus	psi	ASTM D 790	575,000
Notched Izod	ft-lb/in	ASTM D 256	0.5
Rockwell Hardness	-	ASTM D 785	M95
HDT @ 264 psi	°F	ASTM D 648	230
Coefficient Linear thermal expansion	in/in/°F	ASTM D 696	2.8×10^{-5}
Dielectric Strength	V / mil	ASTM D 149	540
Volume Resistivity	ohm-cm	ASTM D 257	4.5×10^{16}
Dielectric Constant	-	ASTM D 150	3

Typical Applications

- ⇒ Electrical components
- ⇒ Wafer retaining rings for CMP
- ⇒ Aerospace parts
- ⇒ Pump, valve and compressor parts
- ⇒ Liquid chromatography components
- ⇒ Automotive parts

Certifications

- ⇒ ASTM D6358
- ⇒ FDA compliant
- ⇒ USDA compliant



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