



Semikon - T-230 - AS

Typical  
Data Sheet  
5/12/17

Semikon-T-230-AS is an Anti-Static fiber reinforced Polyamide-imide polymer product with thermal stability up to 500F. The fiber reinforcement offers high stiffness and deformation resistance up to its maximum service temperature. The product provides suppression of electrostatic charges in test sockets, nests, and fixtures in semiconductor and electronic testing equipment. The static dissipative properties, stiffness at temperature, and dimensional stability of Semikon-T-230-AS makes the product ideal for electronic and semiconductor device handling components. Semikon-T-230-AS is a compression molded, and fully annealed PAI product offering high degree of dimensional stability during and after machining of intricate components. The product is available in rod, tube and plate.

	Properties	Metric	English	Test Method
<b>Physical</b>	Specific Gravity	1.60 g/cc	0.058 lb/in <sup>3</sup>	ASTM D-792
	Water Absorption			
	24 hours	0.58%	0.58%	ASTM D-570
	At Saturation	4.20%	4.20%	ASTM D-570
<b>Mechanical</b>	Tensile Strength, Ultimate	75 MPa	11,000	ASTM D-638
	Tensile Modulus	5.2 GPa	790 ksi	ASTM D-638
	Elongation at Break	2.40%	3.00%	ASTM D-638
	Flexural Strength	136 MPa	19,750	ASTM D-790
	Flexural Modulus	5.51 GPa	800 ksi	ASTM D-790
	Compressive Strength	195 MPa	28,300 psi	10% Def. ; ASTM D-695
	Compressive Modulus	4.13 GPa	600 ksi	ASTM D-695
	Shear Strength	87 Mpa	12,200 ksi	ASTM D-732
	Izod Impact, Notched	0.40 J/cm	0.800 ft-lb/in	ASTM D-256 Type A
	Coefficient of Friction	0.2	0.2	Dry vs. Steel, QTM 55007
	Hardness, Rockwell M	108	108	ASTM D-785
	Hardness, Rockwell R			ASTM D-785
<b>Electrical</b>	Surface Resistivity per Square	1.00e+10 – 1.00e+12 ohm	1.00e+10 – 1.00e+12 ohms	ANSI/EOS/ESD S11.11
	Dissipation Factor 10 <sup>6</sup> Hz	0.182	0.182	ASTM D-150
	Dielectric Constant 10 <sup>6</sup> Hz	5.76	5.76	ASTM D-149
	Dielectric Strength		475 V/mil	
<b>Thermal</b>	CTE, Linear 68°F	5.1 µm/°C	2.85x10 <sup>-5</sup> in/in-°F	(-40°F to 300°F) ASTM E381
	Max Service Temperature, Air	260 °C	500 °F	Long Term
	Deflection Temperature at 1.8 Mpa (264psi)	271 °C	520 °F	ASTM D-648
	Glass Transition Temperature	275 °C	527 °F	ASTM D-3418
	Flammability, UL94 (Estimated Rating)	V-0	V-0	1/8 in
<b>Chemical Resistance</b>	Acids, Strong (pH 1-3)	Limited	Limited	
	Acids, Weak	Acceptable	Acceptable	
	Alcohols	Acceptable	Acceptable	
	Alkalies, Strong (pH-11-14)	Unacceptable	Unacceptable	
	Alkalies, Weak	Limited	Limited	
	Chlorinated Solvents	Acceptable	Acceptable	
	Conductive / Static Dissipative	Yes	Yes	
	Continuous Sunlight	Limited	Limited	
	Hot Water / Steam	Limited	Limited	
	Hydrocarbons - Aliphatic	Acceptable	Acceptable	
	Hydrocarbons - Aromatic	Acceptable	Acceptable	
	Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Acceptable	Acceptable		

To be best of our knowledge the information contained herein is accurate. However, neither Symmtek Polymers LLC, nor its affiliates assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability and whether there is any infringement of patents is the sole responsibility of the user.