

Typical Properties of PLAVIS S series Polyimide

Property	Temp	ASTM Method	Unit	PLAVIS-S	PLAVIS-SG		PLAVIS-S1
				CM	DF	CM	CM
Mechanical							
Tensile Strength, Ultimate	23°C	D-1708	Kg/cm ² (MPa)	1,670 (164)	903 (88.6)	1,070 (105.0)	1,670 (164)
	260°C			650 (64)	342 (33.5)	214 (21.0)	650 (64)
Elongation, Ultimate	23°C	D-1708	%	8.0	2.5	2.6	8.0
	260°C			40.0	4.3	4.3	30.0
Flexural Strength, Ultimate	23°C	D-790	Kg/cm ² (MPa)	1,800 (176)		1,466 (143.8)	2,240 (220.0)
	260°C			1,220 (119.6)		928 (91.0)	990 (97.0)
Flexural Modulus of Elasticity	23°C	D-790	Kg/cm ² (MPa)	54,620 (5,356)		160,000 (15,690)	59,180 (5,800)
	260°C			35,282 (3,460)		95,850 (9,400)	31,630 (3,100)
Compressive Strength	23°C	D-695	Kg/cm ² (MPa)				
	@ 1% Strain						
	@ 10% Strain			2,141 (210)			
	@ 50% Strain						
Compressive Modulus	23°C	D-695	Kg/cm ² (MPa)	82,190 (8,060)			
Impact Strength Izod, notched	23°C	D-256	kgcm/cm	11.7			6.5
			J/m	114.7			64.0
WEAR & FRICTION							
Wear Rate			m/s x 10 ⁻¹⁰	11.0	8.3	30.0	1.0
Friction Coefficient ³⁾ PV=10kg/cm ² .m/sec			(0.98MPa·m/sec)	0.34	0.47	0.39	0.30
THERMAL							
Coefficient of Linear Expansion ³⁾	23~260°C	D-696	µm/m/°C	50	47	57	50
Thermal conductivity	25°C		W/m·°C	0.30	1.50	1.71	0.29
	40°C			0.31	1.50	1.71	
Specific Heat			J/kg·°C	938	880	964	920
			kcal/kg·°C	0.224	0.210	0.230	0.220
Thermal Decomposition Temperature (on-set point, rate 10°C/min, in air)			°C	567		567	565
Thermal 50% weight reduction Time (on-set point, rate 10°C/min, in air)			min	242			250
ELECTRICAL							
Dielectric Constant	23°C, @10 ⁶ Hz	D-150		3.1			3.0
Dielectric Strength		D-149	kV/mm				
Dissipation Factor	23°C, @10 ⁶ Hz	D-150	(10 ⁻³)	0.9			1.0
Volume Resistivity	23°C	D-257	Ω·m	1E15	1E7-8	1E7-8	1E15
Surface Resistivity	23°C	D-257	Ω/□	1E15	1E5-6	1E5-6	1E15
OTHER PROPERTIES							
Water Absorption	50%RH(avg)	D-570	%				
	24hrs 23°C			0.03	0.08	0.07	0.08
	48hrs 50°C			0.20			0.20
Specific Gravity		D-792	g/cm ³	1.45	1.68	1.80	1.46
Hardness		D-785	Rockwell" M"	100-120	80-85	100-105	110-120
			Rockwell" E"				

Distributed by -



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