



POLYMER INDUSTRIES

MECHETEC DELRIN DE588 Typical Properties

Property	Test Method	Units	Delrin DE588
Mechanical			
Specific Gravity	ASTM D792	---	1.54
Tensile Strength	ASTM D638	psi	6,630
Elongation at Break	ASTM D638	%	30
Tensile Modulus	ASTM D638	psi	540,000
Flexural Strength	ASTM D790	psi	12,500
Flexural Modulus	ASTM D790	psi	405,000
Compression Strength	ASTM D695	psi	12,600
Izod Notched Impact	ASTM D256	ft.- lb./in	---
Rockwell Hardness	ASTM D785	M or R scale	R110
Thermal			
Coef. Of Linear Thermal Expansion	ASTM D696	in./in./°F	4.4 x 10 ⁻⁵
Max Continuous Temp.	Internal Std.	°F	185
Heat Defl. Temp. @ 264 psi	ASTM D648	°F	244
Melting Point	ASTM D3418	°F	350
Electrical			
Dielectric Constant	ASTM-DI50	---	3.1
Surface Resistivity	ASTM-D257	Ohm/cm	10 ¹⁶
Dielectric Strength	ASTM-DI49	volts/mil	400
Miscellaneous			
Water Absorption/24 hours	ASTM D570	%	0.2
Water Absorption @ Saturation	ASTM D570	%	0.8
Dissipation Factor	ASTM D150	1 MHz	0.009
Agency Compliance			
FDA	---	---	No
USDA	---	---	No
NSF	---	---	No

Note: Meets requirements for NAVSEA 5959311 rev. C and NAVSEA 803-4384678 rev. B and C

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