



POLYMER INDUSTRIES

DELIRIN

TYPICAL PROPERTIES

Property	Test Method	Units	NATURAL AND BLACK Unfilled Homopolymer	DELIRIN Lf1 13% PTFE Powder Filled Homopolymer	DELIRIN AF Blend 13% PTFE Fiber Filled Homopolymer
Mechanical					
Specific Gravity	ASTM-D792	---	1.42	1.48	1.5
Tensile Strength	ASTM-D638	psi	9,600-11,000	8,000-8,500	7,600-8,000
Tensile Elongation	ASTM-D638	%	30-50	15-30	15-30
Tensile Modulus	ASTM-D638	psi	450,000	600,000	550,000
Flexural Strength	ASTM-D790	psi	14,300	13,500	12,500
Flexural Modulus	ASTM-D790	psi	470,000	410,000	400,000
Compression Strength	ASTM-D695	psi	16,000	15,500	16,000
Izod Notched Impact	ASTM-D256	ft.- lb./in.	1.2	0.8	0.9
Rockwell Hardness	ASTM-D785	M or R scale	M94	M89	M89
Thermal					
Coef. Of Linear Thermal Expansion	ASTM-D696	in./in./°F	4.54x10 ⁻⁵	5.2x10 ⁻⁵	5.0x10 ⁻⁵
Max Continuous Temp.	Internal Std.	°F	185	185	185
Heat Defl. Temp. @ 264 psi	ASTM-D648	°F	257	235	260
Melting Point	ASTM-D3418	°F	347	347	347
Electrical					
Dielectric Strength-Short Term	ASTM-D149	volts/mil	500	400	400
Dielectric Constant @ 60 Hz	ASTM-D150	---	3.7	3.1	3.1
Dielectric Constant @ 10 ⁶ Hz	ASTM-D150	---	3.7	3.1	3.1
Dissipation Factor @ 60 Hz	ASTM-D150	---	0.005	0.009	0.009
Volume Resistivity	ASTM-D257	ohm-cm	10 ¹⁵	10 ¹⁵	10 ¹⁵
Miscellaneous					
Water Absorption/24 hours	ASTM-D570	%	0.25	0.23	0.2
Water Absorption @ Saturation	ASTM-D570	%	0.9	0.8	0.72
Flammability	UL-94	---	HB	HB	HB
Dynamic Coefficient of Friction	Internal Std.	---	0.2	0.16	0.17
Agency Compliance					
FDA	---	---	Yes	Yes	No
USDA	---	---	Yes	Yes	No
NSF	---	---	No	No	No

Other DELIRIN Specialties Available- DELIRIN DE-588 and DELIRIN 100AF

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