



POLYMER INDUSTRIES

Property*	ASTM Test Method	Polyslick Natural	Polyslick HT Hi-Temp	Polyslick GXL Glass Filled, Cross-Linked	Polyslick GF Glass Filled	Polyslick CP Ceramic Impregnated
Physical and Mechanical Properties						
Density	D792	0.932 g/cc	0.935 g/cc	0.945 g/cc	0.96 g/cc	0.96 g/cc
Tensile strength @ Yield	D638	3,500 psi	3100 psi	2900 psi	3000 psi	5500 psi
Tensile strength @ Break	D638	4350 psi	4350 psi	4800 psi	3200 psi	
Elongation at Break	D638	300%	250%	350%	260%	300%
Compressive Strength	D695	3000 psi	3000 psi	3000 psi	3000 psi	
Coefficient of Friction, Static	D1894	0.2	0.15	0.2	0.2	0.2
Coefficient of Friction, Kinetic	D1894	0.15	0.1	0.15	0.15	0.15
Abrasion Resistance**	---	10	9	7	8	5
Izod Impact Strength	D4020, Method A	> 100 KJ/m ²	> 95 KJ/m ²	> 95 KJ/m ²	> 90 KJ/m ²	> 90 KJ/m ²
Durometer Hardness	D2240	64 Shore D	64 Shore D	68 Shore D	69 Shore D	68 Shore D
Water Absorption @ Saturation	D570	0.01%	0.01%	0.01%	0.01%	0.01%
Thermal Properties						
Melting Point	---	271 °F	> 350 °F	270 - 280 °F	270 - 280 °F	270 - 280 °F
Coefficient of Linear Thermal Expansion	D696	8.3 X 10 ⁻⁵ in/in/°F	7 X 10 ⁻⁵ in/in/°F	4 X 10 ⁻⁵ in/in/°F	5 X 10 ⁻⁵ in/in/°F	5 X 10 ⁻⁵ in/in/°F
Maximum Service Temperature (Air)	Long Term	180 °F	180 °F	180 °F	180 °F	180 °F
Flammability, UL 94	1/8 inch	HB	HB	HB	HB	HB
Electrical Properties						
Dielectric Strength	D149	90.3 KV/mm	90.3 KV/mm	90.3 KV/mm	90.3 KV/mm	90.3 KV/mm
Dielectric Constant	D150	2.3	2.3	2.3	2.3	2.3
Volume Resistivity	D257	1 X 10 ¹⁴ ohm-cm	1 X 10 ¹⁴ ohm-cm	1 X 10 ¹⁴ ohm-cm	1 X 10 ¹⁴ ohm-cm	1 X 10 ¹⁴ ohm-cm
Surface Resistivity	D257	1 X 10 ¹² ohm	1 X 10 ¹² ohm	1 X 10 ¹² ohm	1 X 10 ¹² ohm	1 X 10 ¹² ohm
Property*						
	ASTM Test Method	Polyslick OF Oil Filled	Polyslick MF Moly Filled	Polyslick AS Anti-Static	Polyslick CDE Conductive	Polyslick Repro Reprocessed
Physical and Mechanical Properties						
Density	D792	0.930 g/cc	0.94 g/cc	0.932 g/cc	0.932 g/cc	0.932 g/cc
Tensile strength @ Yield,	D638	3,300 psi	3,500 psi	3,500 psi	3,500 psi	3,300 psi
Elongation at Break	D638	280%	210%	300%	300%	240%
Coefficient of Friction, Static	D1894	0.15	0.1	0.2	0.2	0.25
Coefficient of Friction, Kinetic	D1894	0.1	0.08	0.15	0.15	0.2
Abrasion Resistance**	---	10	10	10	10	9
Izod Impact Strength	D4020, Method A	> 95 KJ/m ²	> 95 KJ/m ²	> 100 KJ/m ²	> 100 KJ/m ²	> 80 KJ/m ²
Durometer Hardness	D2240	62 Shore D	64 Shore D	64 Shore D	64 Shore D	66 Shore D
Water Absorption @ Saturation	D570	0.01%	0.01%	0.01%	0.01%	0.01%
Thermal Properties						
Melting Point	---	270 - 280 °F	270 - 280 °F	271 °F	271 °F	270 - 280 °F
Coefficient of Linear Thermal Expansion	D696	8.3 X 10 ⁻⁵ in/in/°F	8.3 X 10 ⁻⁵ in/in/°F	8.3 X 10 ⁻⁵ in/in/°F	8.3 X 10 ⁻⁵ in/in/°F	7 X 10 ⁻⁵ in/in/°F
Flammability, UL 94	1/8 inch	HB	HB	HB	HB	HB
Electrical Properties						
Dielectric Strength	D149	90.3 KV/mm	90.3 KV/mm	N/A	N/A	90.3 KV/mm
Dielectric Constant	D150	2.3	2.3	N/A	N/A	2.3
Volume Resistivity	D257	1 X 10 ¹⁴ ohm-cm	1 X 10 ¹⁴ ohm-cm	N/A	N/A	1 X 10 ¹⁴ ohm-cm
Surface Resistivity	D257	1 X 10 ¹² ohm	1 X 10 ¹² ohm	> 1 X 10 ⁷ ohm	> 1 X 10 ⁴ ohm	1 X 10 ¹² ohm

*The nominal properties reported herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes.

**This refers to relative volumetric abrasion loss in a sand slurry test with Polyslick Natural = 10. The lower the number, the better the abrasion resistance.

Typical Properties reported herein were determined on compression molded samples prepared in accordance with Procedure C of ASTM D4703, Annex A1.