



Oxford Performance Materials

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## High Performance Thermoplastic OXPEKK® Permetta™ Film

- Superior Electrical Properties
- Highly Formable Matrix
- High Tg
- Flame Retardant UL94 V-0 Rated
- OSU 65/65 Compliant
- Excellent Adhesive Performance

AVERAGE BOND STRENGTH of OXPEKK® Permetta™ Film to various substrates	
Substrate	Tensile Strength at Break (psi)
Galvanized Steel	1010
Aluminum	1380
Anodized Aluminum	1520
Alclad Aluminum	1540
Stainless Steel	1730
Steel	2590

Above samples bonded using a Carver Laboratory Press at approximately 525°F at 2000 psi for 10 seconds. All samples exhibited cohesive failure. Samples tested in accordance with ASTM D638.

PROPERTY	TEST METHOD	OXPEKK-SP
		Amorphous
		Unfilled
Color		Amber
Linear Mold Shrinkage, in/in	ASTM D955	<0.005
Specific Gravity, g/cm <sup>3</sup>	ASTM D792	1.28
Water Absorption @ 24hr, %	ASTM D570	<0.20
<b>MECHANICAL</b>		
Tensile Strength (Break), Kpsi	ASTM D638	13
Tensile Modulus, Mpsi	ASTM D638	0.5
Elongation (Break), %	ASTM D638	80
Flexural Strength (Yield), Kpsi	ASTM D790	20
Flexural Modulus, Mpsi	ASTM D790	0.49
Izod, Notched, ft-lb/in	ASTM D256	0.9
Compressive Strength, Kpsi	ASTM D695	15
Coefficient of Friction, Static	ASTM D1894	0.285
Hardness, Rockwell M	ASTM D785	86
<b>THERMAL</b>		
Tm-Melting Point, oF (°C)	DSC	577 (303)
Tg-Glass Transition, oF (°C)	DSC	310 (155)
Melt Flow, g/10min	ASTM D1638	35-45 (380C/8.4kg)
Flammability Rating	UL94	V-0
HDT @ 264 psi, oF (°C)	ASTM D648	286 (141)
Thermal Conductivity, BTU-In/Hr-Ft <sup>2</sup> F	ASTM C177	1.75
CTE (<Tg), 10-6/°F	ASTM D696	42.8
<b>ELECTRICAL (5 mil)</b>		
Dielectric Strength, V/mil	ASTM D149	1900
Dielectric Constant @ 1KHz	ASTM D150	2.1
Volume Resistivity, ohm-cm	ASTM D257	1.0E+16
Surface Resistivity, ohm	ASTM D257	2.0E+16
Dissipation Factor @ 1KHz	ASTM D150	0.001

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