

PRODUCT INFORMATION

PRODUCT	<p style="text-align: right;"><i>(TYPICAL PROPERTIES)</i></p> <p style="text-align: right;">These should not be considered as specifications.</p> <h2 style="text-align: center;">KEY PC2082AB</h2> <h3 style="text-align: center;"><i>Clear Potting Compound for LED, Solar and Aerospace</i></h3>											
DESCRIPTION	<p>KEY PC2082AB is an optically clear potting compound and sealant that is ideal for interior and exterior LED and Solar applications. KEY PC2082AB aggressively adheres to clear polycarbonate, FR-4 and printed circuit boards without the need for a primer. KEY PC2082AB is resistant to SKYDROL and DEF automotive fluid, and passes ASTM E595 outgassing making it suitable for aerospace applications and high temperature emergency lighting. KEY PC2082AB is UV stable for outdoor applications. KEY PC2082AB features a low viscosity for flowing around intricate circuit board components and a convenient 1:1 by volume ratio for meter-mix equipment and easy to use handheld cartridges.</p>											
ADVANTAGES & APPLICATIONS	<ul style="list-style-type: none"> ✓ Optically Clear ✓ Low Embedment Stress on Electronics ✓ Resistant to SKYDROL and DEF ✓ UV Stable for Exterior Applications ✓ Low Outgassing – Passes ASTM E595 ✓ 1:1 Mixing by Volume 											
PHYSICAL PROPERTIES		KEY PC2082A Color Viscosity @ 77°F (25°C) Brookfield RVT Specific Gravity Density (lbs/gal)	KEY PC2082B Clear – Slight Straw 400 cPs #4 @ 20 rpm 1.08 9.0	MIX Clear – Water White 1,700 cPs #4 @ 20 rpm 1.12 9.3								
CURED PROPERTIES	<p>Ultimate Hardness 75 Shore A Operating Temperature Range -40°C to 100°C (-40°F to 212°F) KEY PC2082AB discolors with prolonged exposure above 100°C</p>											
CHEMICAL RESISTANCE	1000 Hour Immersion Study (72°F) SKYDROL LD-4 Diesel Exhaust Fluid (DEF)	Weight Increase 4.6% 0.7%	Hardness Retention 94.6% 100%									
CURE SCHEDULE	<p>Gel Time (100g) 30 minutes at 25°C (77°F) Hard Cure 4 hours at 25°C (77°F) Full Cure Within 48 hours Accelerated Cure Mild 66°C to 80°C (150°F-175°C) heat cures can accelerate cure</p>											
INSTRUCTIONS FOR USE	<table border="1" data-bbox="456 1339 1174 1430"> <thead> <tr> <th>MIX RATIO By</th> <th>WEIGHT</th> <th>VOLUME</th> </tr> </thead> <tbody> <tr> <td>KEY PC2082 Part A</td> <td>109 A</td> <td>1 A</td> </tr> <tr> <td>KEY PC2082 Part B</td> <td>100 B</td> <td>1 B</td> </tr> </tbody> </table> <p>Combine Part A and B and mix thoroughly, being careful to limit entrapped air during mixing. Scrape sides, walls and bottom of container. Pour material into part and cure. Bulk meter-mix dispensing machines and convenient cartridges provide air free mixing.</p>			MIX RATIO By	WEIGHT	VOLUME	KEY PC2082 Part A	109 A	1 A	KEY PC2082 Part B	100 B	1 B
MIX RATIO By	WEIGHT	VOLUME										
KEY PC2082 Part A	109 A	1 A										
KEY PC2082 Part B	100 B	1 B										
SAFETY & HANDLING	<p>PLEASE READ MATERIAL SAFETY DATA SHEET BEFORE USING. Avoid all contact with skin, eyes, clothing and food. Wash thoroughly after handling.</p>											
SHELF LIFE & STORAGE <i>For Unopened, Factory Sealed Containers.</i>	<table data-bbox="456 1591 1521 1799"> <tr> <td>KEY PC2082A</td> <td>12 Months from Date of Manufacture (-18°C to 35°C)</td> </tr> <tr> <td>KEY PC2082B</td> <td>12 Months from Date of Manufacture (-18°C to 35°C)</td> </tr> <tr> <td>KEY PC2082AB Cartridges</td> <td>12 Months from Date of Manufacture (-18°C to 35°C)</td> </tr> </table>			KEY PC2082A	12 Months from Date of Manufacture (-18°C to 35°C)	KEY PC2082B	12 Months from Date of Manufacture (-18°C to 35°C)	KEY PC2082AB Cartridges	12 Months from Date of Manufacture (-18°C to 35°C)			
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KEY POLYMER

CORPORATION

SPECIALTY CHEMICAL COMPOUNDS

17 Shepard Street, Lawrence, MA 01843-1023 ■ 978/683-9411 ■ FAX 978/686-7729

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DCO 4816

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KEY PC2082AB

Clear Potting Compound for LED, Solar and Aerospace

CURED PROPERTIES (Typical) Page 2

METALLIC ADHESION	ASTM	Temperature	Value
Tensile Lap Shear Strength, 1" x 4" Adherands, 1 inch overlap Co = Cohesive Bond Mode Ad = Adhesive Bond Mode			
Aluminum Bare	D1002	25°C (77°F)	450 psi [Ad]
Steel Bare	D1002	25°C (77°F)	450 psi [Ad]
Stainless Steel 304	D1002	25°C (77°F)	360 psi [Ad]
Brass Alloy 360	D1002	25°C (77°F)	220 psi [Ad]
Galvanized Steel	D1002	25°C (77°F)	460 psi [Ad]
Copper Alloy 110	D1002	25°C (77°F)	600 psi [Co]
Circuit Board	ASTM	Temperature	Value
Tensile Lap Shear Strength, 1" x 4" Adherands, 1 inch overlap Co = Cohesive Bond Mode Ad = Adhesive Bond Mode			
FR-4	D3163	25°C (77°F)	825 psi [Co]
THERMOPLASTIC ADHESION	ASTM	Temperature	Value
Tensile Lap Shear Strength, 1" x 4" Adherands, 1 inch overlap Co = Cohesive Bond Mode Ad = Adhesive Bond Mode			
Acrylic	D3163	25°C (77°F)	270 psi [Ad]
Acrylic / PVC	D3163	25°C (77°F)	570 psi [Co]
PVC - Polyvinyl Chloride	D3163	25°C (77°F)	650 psi [Co]
CPVC - Chlorinated PVC	D3163	25°C (77°F)	975 psi [Co]
ABS Acrylonitrile Butadiene Styrene	D3163	25°C (77°F)	430 psi [Ad]
PETG Polyethylene Terephthalate	D3163	25°C (77°F)	750 psi [Co]
Polycarbonate	D3163	25°C (77°F)	445 psi [Co]
Nylon 6/6 - Polyamide	D3163	25°C (77°F)	215 psi [Ad]
Polypropylene	D3163	25°C (77°F)	40 psi [Ad]
Polyethylene LDPE	D3163	25°C (77°F)	20 psi [Ad]
Polyethylene HDPE	D3163	25°C (77°F)	40 psi [Ad]
Noryl Polyphenylene Oxide/Polystyrene	D3163	25°C (77°F)	280 psi [Ad]
Ultem - Polyetherimide	D3163	25°C (77°F)	360 psi [Ad]

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	KEY PC2082AB <i>Clear Potting Compound for LED, Solar and Aerospace</i>				
CURED PROPERTIES <i>(Typical) Page 3</i>	Electrical Properties				
	Dielectric Strength	ASTM D149	Temperature 25°C (77°F)	Value 360 Volts/mil	
	Volume Resistivity	D257	25°C (77°F)	5.9 x 10 ¹³ Ω-cm	
	Dielectric Constant 1 MHz	D150	25°C (77°F)	3.57	
	Dissipation Factor 1 MHz	D150	25°C (77°F)	0.08	
	Thermal Properties			Value	
	Thermal Conductivity	ASTM E1461	Condition 25°C (77°F)	.100 W/m ² K	
	Coefficient of Thermal Expansion	E831	-50°C to 150°C	185.6 ppm/°C	
	Mechanical Properties			Value	
	Tensile Strength	ASTM D412	Condition 25°C (77°F)	660 psi	
	Elongation at Break	D412	25°C (77°F)	70%	
	Hardness vs RT Cure 100 gram mass	1 Hour	D2240	25°C (77°F)	35 A
		2 Hours	D2240	25°C (77°F)	40 A
		4 Hours	D2240	25°C (77°F)	60 A
		8 Hours	D2240	25°C (77°F)	65 A
12 Hours		D2240	25°C (77°F)	68 A	
1 Day	D2240	25°C (77°F)	70 A		

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**KEY POLYMER CORP.
LAWRENCE, MA 01843**

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