

PRODUCT INFORMATION

PRODUCT	<i>(TYPICAL PROPERTIES)</i> These should not be considered as specifications.			
	KEY PC2072AB Clear Tough-Seal Clear Sealant for LED Lighting			
DESCRIPTION	<p>KEY PC2072AB is an optically clear potting compound and sealant that is ideal for LED applications. KEY PC2072AB aggressively adheres to clear polycarbonate substrates without the need of a primer and KEY PC2072AB is UV stable for outdoor lighting applications. KEY PC2072AB is a low viscosity system, which allows it to flow into and seal intricate electronic parts. Once cured, KEY PC2072AB forms an elastomeric barrier that protects electronic components from exposure over a wide temperature.</p>			
ADVANTAGES & APPLICATIONS	<ul style="list-style-type: none"> ✓ Aggressive adhesion to clear polycarbonate ✓ Optically clear ✓ Low Embedment Stress on Electronics, Low Shrinkage ✓ Low Viscosity 			
PHYSICAL PROPERTIES <i>(Typical)</i>		PC2072A	PC2072B	MIX
	Color	Clear	Clear	Clear
Viscosity at 25°C Brookfield RVT	3,000 cP #4 @ 20 rpm	400 cP #4 @ 20 rpm	1500 cP #4 @ 20 rpm	
Specific Gravity	1.16	1.08	1.12	
Density (lbs/gal)	9.7	9.0	9.3	
CURED PROPERTIES <i>(Typical)</i>	Property	ASTM	Temperature	Value
	Elongation at Break	D638	25°C (77°F)	68%
	Hardness, Shore A	D2240	25°C (77°F)	70
	<i>Comprehensive electrical & thermal mechanical properties are listed on following pages.</i>			
CURE SCHEDULE <i>(Typical)</i>	Gel Time (100g):		60 minutes at 25°C (77°F)	
	Hard Cure		Overnight at 25°C (77°F)	
	Full Cure		24 hours	
	Accelerated Cure		Yes, Mild Heating to 60°C (158°F)	
INSTRUCTIONS FOR USE	MIX RATIO By	WEIGHT	VOLUME	
	KEY PC2072A	109 A	1 A	
	KEY PC2072B	100 B	1 B	
	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.			
SAFETY & HANDLING	PLEASE READ MATERIAL SAFETY DATA SHEET BEFORE USING. Avoid all contact with skin, eyes, clothing and food. Wash thoroughly after handling.			
SHELF LIFE & STORAGE INFO <i>For Unopened, Factory Sealed Containers</i>	KEY PC2072A	6 Months from Date of Manufacture (15°C to 35°C)		
	KEY PC2072B	6 Months from Date of Manufacture (15°C to 35°C)		
	KEY PC2072AB Cartridges	3 Months from Date of Shipment (15°C to 35°C)		
	DCO 4202 AB			

KEY POLYMER

CORPORATION

SPECIALTY CHEMICAL COMPOUNDS

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

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CURED PROPERTIES <i>(Typical) Page 2</i>	Electrical Properties			
	Dielectric Strength	ASTM D149	Temperature 25°C (77°F)	Value 250 Volts/mil
	Volume Resistivity	D257	25°C (77°F)	1.1 x 10 ¹³ Ω-cm
	Dielectric Constant 1 MHz	D150	25°C (77°F)	4.18
	Dissipation Factor 1 MHz	D150	25°C (77°F)	0.103
	Thermal Properties			ASTM
				Condition
				Value
	Heat Capacity, Cp	E1461	25°C (77°F)	.056 J/g°K
	Thermal Conductivity	E1461	25°C (77°F)	.100 W/m°K
	Coefficient of Thermal Expansion	E831	-60°C to 150°C	173 ppm/°C
	Mechanical Properties			ASTM
				Condition
				Value
	Tensile Strength	D638	25°C (77°F)	540 psi
	Elongation at Break	D638	25°C (77°F)	68%
Hardness vs RT Cure	1 Hour	D2240	25°C (77°F)	0 A
	2 Hours	D2240	25°C (77°F)	0 A
	4 Hours	D2240	25°C (77°F)	45 A
	8 Hours	D2240	25°C (77°F)	55 A
	12 Hours	D2240	25°C (77°F)	56 A
	1 Day	D2240	25°C (77°F)	59 A

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CURED PROPERTIES <i>(Typical) Page 3</i>	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)	380 psi [Co]
	Steel Bare	D1002	25°C (77°F)	215 psi [Ad]
	Stainless Steel 304	D1002	25°C (77°F)	670 psi [Co]
	Brass Alloy 360	D1002	25°C (77°F)	320 psi [Ad]
	Galvanized Steel	D1002	25°C (77°F)	505 psi [Co]
	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)	1255 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)	60 psi [Ad]
	Acrylic / PVC	D3163	25°C (77°F)	290 psi [Co]
	PVC - Polyvinyl Chloride	D3163	25°C (77°F)	470 psi [Co]
	CPVC - Chlorinated PVC	D3163	25°C (77°F)	680 psi [Co]
	ABS Acrylonitrile Butadiene Styrene	D3163	25°C (77°F)	240 psi [Ad]
	PETG Polyethylene Terephthalate	D3163	25°C (77°F)	480 psi [Co]
	Polycarbonate	D3163	25°C (77°F)	750 psi [Co]
	Nylon 6/6 - Polyamide	D3163	25°C (77°F)	100 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)	50 psi [Ad]
	Teflon PTFE Polytetrafluoroethylene	D3163	25°C (77°F)	30 psi [Ad]
Noryl Polyphenylene Oxide/Polystyrene	D3163	25°C (77°F)	320 psi [Co]	
Ultem - Polyetherimide	D3163	25°C (77°F)	300 psi [Co]	

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

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