



# LONG WORKING TIME ~ LOW VISCOSITY

## KEY PC8060A/B

### ^ Mechanical Properties

60

Tensile Strength per ASTM D638, 25°C, PSI

485

Elongation per ASTM D638, Type I, 0.125 in, 25°C

109%

Tensile Lap Shear Strength - per ASTM D1002, 25°C, psi \*

METALLICS	Aluminum Bare	407 Co
	Steel Bare	297 Co
	Steel Ground	248 Co
	Primed Steel	N/A
	Galvanized Steel	248 Co
	Tin Plated Steel	N/A
	Chrome Plated Steel	N/A

Tensile Lap Shear Strength - per ASTM D3163, 25°C, psi \*\*

FRP	FRP - Polyester Fiberglass	N/A
	Garolite G-9 Melamine/Glass	N/A
	Garolite G-10 Epoxy/Glass	N/A
	Garolite XX Phenolic/Paper	N/A

Tensile Lap Shear Strength - per ASTM D3163, 25°C, psi \*\*

THERMOPLASTIC	Acrylic	291 Co
	Acrylic/PVC	N/A
	PVC - Polyvinyl Chloride	393 Co
	CPVC - Chlorinated PVC	N/A
	ABS - Acrylonitrile Butadiene Styrene	286 Co
	PETG - Polyethylene Terephthalate	N/A
	Lexan - Polycarbonate	220 Co
	Nylon 6/6 - Polyamide	311 Co
	Polypropylene	N/A
	Polyethylene LDPE	18 Ad
	Polyethylene HDPE	54 Ad
	Teflon PTFE - Polytetrafluoroethylene	4 Ad
	Noryl - Polyphenylene Oxide/Polystyrene	380 Ad
	Ultem Polyetherimide	335 Co

		KEY PC8060A/B	
60		60	
Electrical & Thermal Properties		60	
Dielectric Strength, 25°C, Volts/mil		353	
Volume Resistivity, 25°C, Ohm-cm x (10)12		2.48	
Dielectric Constant, 25°C - 1 MHz		3.93	
Dielectric Constant, 25°C - 1 kHz		4.40	
Dielectric Constant, 25°C - 60 Hz		8.40	
Dissipation Factor, 25°C - 1 MHz		0.030	
Dissipation Factor, 25°C - 1 kHz		0.111	
Dissipation Factor, 25°C - 60 Hz		0.686	
Heat Capacity Cp, 25°C, J/g°K		NT	
Thermal Conductivity, 25°C, W/m°K		0.22	
Coefficient of Thermal Expansion, ppm/°C		ppm/°F	
(-) 65°C to 75°C	191	(-) 85°F to 167°F	106
75°C to 100°C	191	167°F to 212°F	106
100°C to 150°C	191	212°F to 302°F	106
Hardness vs Temperature		60	
(-75°C / -103°F)		N/A	
(-25°C / -13°F)		66A	
5°C / 41°F		66A	
25°C / 77°F		66A	
50°C / 122°F		57A	
66°C / 150°F		56A	
80°C / 176°F		47A	
100°C / 212°F		44A	
120°C / 248°F		40A	
150°C / 302°F		39A	
Hardness vs Ambient Cure Time		60	
1 Hour		N/A	
2 Hours		N/A	
4 Hours		4A	
8 Hours		20A	
12 Hours		30A	
1 Day		49A	
2 Days		56A	
3 Hours		61A	
4 Hours		63A	
1 Week		66A	
1 Month		N/A	



## LONG WORKING TIME ~ LOW VISCOSITY KEY PC8060A/B

### DESCRIPTION

TOUGH-SEAL™ ULTRA 60 is a tough and durable longer working time low viscosity potting compound and sealant that flows like maple syrup around electrical components to ensure complete coverage of your entire PCB or electronic assembly. Bulldog tough, TOUGH-SEAL™ ULTRA, can endure over 2000 hours of rigorous reliability testing at 85C/85%, without any signs of degradation or change in hardness, making it an excellent choice for endless electronics applications. The new extended shelf-life TOUGH-SEAL™ 60 ULTRA is RoHS, REACH and Prop 65 Compliant.

### CHARACTERISTICS

- Low Exotherm, Low Shrinkage, Non-Cracking
- Polycarbonate Compatible
- Endures +2000 hours of rigorous reliability testing at 85C/85% RH
- Thermal Cycling -40C to 150C

^ Physical Properties	60
Color, Part A	Black
Viscosity at 25°C, cP, Part A, (RVT #5, 20 RPM)	3,800
Specific Gravity at 25°C, Part A	1.07
Color, Part B	Amber
Viscosity at 25°C, cP, Part B, (RVT #5, 20 RPM)	1,300
Specific Gravity at 25°C, Part B	1.00
Density at 25°C, lbs/gal, Part B	8.35
Color, Mix	Black
Viscosity at 25°C, cP, Mix, (RVT #5, 20 RPM)	3000
Specific Gravity at 25°C, Mix	1.05
Density at 25°C, lbs/gal, Mix	8.76
Mix Ratio by Volume	2A to 1B
Mix Ratio by Weight	100A to 46.8B
Gel Time at 25°C, Minutes, 100 grams	60
Shelf Life, Ambient, Part A Bulk (15°C to 35°C)	12 Months
Shelf Life, Ambient, Part B Bulk (15°C to 35°C)	12 Months
Shelf Life, Cold, Part A Bulk (-18°C to 3°C)	12 Months
Shelf Life, Cold, Part B Bulk (-18°C to 3°C)	12 Months

✓ Electrical & Thermal Properties

✓ Hardness vs Temperature

✓ Hardness vs Ambient Cure Time

✓ Mechanical Properties