

PC310A&B Liquid Encapsulant

PRODUCT FEATURES

- Cures at Room Temperature or with heat
- Transparent and Low Color
- Versatile Adhesion
- Good Durability
- Good Electrical Properties
- FDA Compliant Composition

DESCRIPTION

PC310A&B is an unfilled epoxy based product designed for potting, bonding and encapsulation usage. Cured **PC310A&B** has good adhesion to many metals, ceramics, and other materials. The product has been formulated to be compliant with FDA 21 CFR 175.300 and 21 CFR176.170.

PC310A&B will cure at room temperature. It can also be cured very rapidly and effectively at elevated temperatures. Cure times of under 20 minutes can be achieved by curing at temperatures in the range of 80°-100°C. For optimal properties the product is best heat cured or room temperature cured followed by a post heat cure exposure.

Cured **PC310A&B** has good chemical resistance to a range of solvents and fluids and good electrical properties.

PROPERTIES

Uncured Properties

	PC310A	PC310B	Mixed Product
Type	Formulated epoxy resin	Formulated polyamine	
Appearance	Clear; viscous liquid	Clear; thin liquid	Clear; medium viscosity liquid
Color	Light yellow	Light yellow	Light yellow
Specific Gravity	1.17	0.94	1.14
Viscosity @25°	12,000 cps	10 cps	400 cps

PROCESS PARAMETERS

In order to achieve the correct mix ratio, a scale should be used to proportion out the Part A and Part B. After Part B has been added to Part A the material needs to be thoroughly mixed for several minutes to assure uniformity. Sides and bottom of the mix container should be scraped to blend all material together. During mixing avoid entrapping excessive amounts of air.

After mixing the material can then be placed under vacuum in a dessicator to remove all entrapped air. This can be done for 3-5 minutes or until the material stops rising under vacuum. If a vacuum is unavailable, the mixed material can also be centrifuged to quickly remove air. If these are both not available the mixture should be allowed to remain in the can several minutes prior to use for the foam to rise to the surface.

CURING OF PC310A&B

Mix Ratio of Part B per 100 parts A

By Weight	11
By Volume	15
Pot Life @25° (100 ml)	15 minutes
Set Time @25°(100 ml)	30 minutes
Set Time, thin film	4 hours
Cure Time, thin film @25°C	8 hours

TYPICAL CURED PROPERTIES

Operating Temperature	
Range, °C	-30 thru +120 under moderate stress -40 thru +150 under low stress
Hardness, Shore	80D
Tg	55°C
CTE	
Below 55°C	60
Above 55°C	230
Adhesion (ASTM D1002)	
2024T3-Al, FPL etched	1700 psi
1010-CRS, grit blasted	1800 psi

STORAGE AND HANDLING

Shipment
Recommended temperature is Room temperature

Storage
Store at 25°C for up to 12 months

Safety
Refer to MSDS for details

TO ORDER

In The U.S. Call:	1(800) 523-2575 • (215) 343-6484
In The U.S. Fax:	1(800) 343-3291 • (215) 343-0214
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