



U.S. Corporate Headquarters
400 Valley Rd.
Warrington, PA 18976
1(800) 523-2575 / (215) 343-6484
1(800)343-3291 fax
info@polysciences.com

Polysciences Europe GmbH
Badener Str. 13
69493 Hirschberg an der Bergstrasse,
Germany
+(49) 06201-845200
+(49) 06201-8452020 fax
info@polysciences.de

Polysciences Asia-Pacific, Inc.
2F-1, 207 DunHua N. Rd.
Taipei, Taiwan 10595
(886) 2 8712 0600
(886) 2 8712 2677 fax
info@polysciences.tw

TECHNICAL DATA SHEET PC1201K

Page 1 of 2

Thermally Conductive Epoxy Encapsulant

DESCRIPTION

PC 1201K is a 2 (A & B) component epoxy for applications requiring high: thermal conductivity, heat resistance, rigidity and dimensional stability. The cured product has excellent adhesion to many substrates, including: metals, thermosetting plastics, and ceramics.

FEATURES

Very High Heat Resistance- High Tg
Good Durability
High Modulus
Good Dimensional Stability- Low CTE
High Thermal Conductivity

UNCURED PROPERTIES (Typical Properties)

	PC 1201 Part A	PC 1201 Part B
Type	Epoxy Resin/ Ceramic Mixture	Anhydride Curing Agent Mixture
Color	Black	Clear, Light yellow
Viscosity, cps	350,000	100

PROPERTIES OF MIXED MATERIAL (Typical Properties, values approximate)

	PC1201 A/B
Mix Ratio, by Weight	6 : 1
Pot Life @ 25°C	8 hours
Color	Black
Viscosity ,cps	25,000

CURING OF MIXED MATERIAL (Typical Properties, values approximate)

	PC1201 A/B – Glue Line Time/Temperature
Optimum Cure Cycle	1 hour @ 100°C + 1 hour @ 165°C
Alternate Cure Cycle	1 hour @ 165°C

Actual time to cure will depend on several factors which will effect the time for the glue line to reach temperature. These include:

- Mass of the part to be heated- larger parts will require longer time for the glue line to reach temperature.
- Thermal conductivity of the part being heated- non-metals will require longer curing times to transfer heat to the glue line.
- Size and efficiency of the curing oven-larger ovens will require longer time to transfer heat to the glue line.

CURED PROPERTIES (Typical Properties)

	PC1201 A/B
Durometer, Shore D	90
Tg	170
CTE, ppm	18
Thermal Conductivity W/m ² K	1.05

USAGE

Add Part B and Part A together at the correct mix ratio (1 : 6). Because of the high viscosity of Part A, it can be warmed to 50°C to reduce viscosity and facilitate ease of mixing.

Mix the components together avoiding air entrapment as much as possible. Mix until product is uniform. Scrape sides of the container to be sure all material is mixed. Before use the product may be placed in a vacuum chamber while applying vacuum. The mixture should be exposed to vacuum until foaming stops. Since under vacuum the product may rise, it must be placed in a container at least 5 times the initial product volume.

For mixing of small amounts, dispense material into a clear plastic bag, squeeze out entrapped air, seal and knead to mix. This will produce an air free mixture.

STORAGE AND HANDLING

Product Shelf Life and Storage

12 months.

Product containers should be closed when not in use.

SAFETY

Refer to MSDS for details. All values are considered typical based on tests believed to be accurate. Polysciences, Inc. may change the data as appropriate.

ORDERING INFORMATION

Cat. #	Description	Price
PC1201K-1	Thermally Conductive Epoxy Encapsulant	Contact us.

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

In Germany Call: +(49) 06201-845200

In Germany Fax: +(49) 06201-8452020

In Asia Call: (886) 2 8712 0600

In Asia Fax: (886) 2 8712 2677

Order online anytime at www.polysciences.com