

Description

PT366 is a two-part black potting compound based on epoxy resins. The black colorant used is a stable organic dye. When fully cured the surface is glossy, bluish free and hard. It has very good scratch and water resistance. This system has enhanced adhesion, is of low viscosity and wets glass, ceramics, most plastics and metals well.

Features

- Room/low temperature cure (25°C)
- Low viscosity
- Recommended operating temperature range: -40 to 150°C

Applications

- Black potting epoxy for electronic devices which require non-electromagnetic interferences.

Uncured Properties	Typical Value	Unit	Test Method
Color (Part A)	Black	-	PEN 10
Color (Part B)	Clear to yellowish	-	PEN 10
Color (Mixed)	Black	-	PEN 10
Viscosity at 25°C (Part A)	14,688	cP	ASTM D4287
Viscosity at 25°C (Part B)	78	cP	ASTM D4287
Viscosity at 25°C (Mixed)	1,200	cP	ASTM D4287
Pot life, 25°C	1	Hour	PEN 57
Mix ratio (A:B) by weight	2:1	-	N/A
Shelf life Part A and B, 25°C	12	Month	PEN 26
Cured Properties		Unit	Test Method
Hardness, cure @ 25°C/24hrs	77	Shore D	ASTM D2240
Density	1.14	g/cm ³	ASTM D792
Tensile strength	64	MPa	PEN 41
Flexural strength	1,041	kgcm ⁻²	PEN 116
Water boil, weight gain, 24 hours	1.0	%	PEN 21
Dielectric strength	558	V/mil	ASTM D149
Volume resistivity, 25°C	5.0 x 10 ¹⁵	-	ASTM D257
Glass transition, T _g , cured 25°C for 7 days	63	°C	ASTM D3418
CTE before T _g	57	ppm/°C	ASTM E831-03
CTE after T _g	201	ppm/°C	ASTM E831-03
Operating temperature range	-40 to 150	°C	PEN 92
Dissipation factor, 100 Hz, 25°C	3.0 x 10 ⁻³	-	PEN 63

* The values above are tested based on batch to batch basis. These values are not used as a basis for preparing specifications.

* Viscosity was measured by CAP2000+ Viscometer, 25°C.

* PEN is referring to Penchem's standard test method; ASTM is for test reference only.

* N/A is referring to not applicable.

Guideline of Use

Direction for use

- 1) Mix Part A resin and Part B hardener at recommended standard ratio, then stir it with a suitable spatula or mixer until it is uniform. It is recommended to centrifuge the syringe first before use to remove any bubbles formed during mixing. Ignore this instruction if users are using a dual barrel syringe or automation process.
- 2) The pot life is more than 60 minutes. Processing or pouring the mixed epoxy after 1 hour may tend to trap bubbles.
- 3) The epoxy may be poured over the object, spread with a brush, or dispensed with a syringe. The user is responsible to determine the suitability of the product for all intended uses.

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- 4) Blowing hot air over the surface of the epoxy can break any bubbles formed during mixing.
- 5) Wipe off any excess uncured epoxy with a piece of dry cloth or tissue. Further cleaning may be achieved with tissue wetted with isopropanol (IPA).
- 6) The epoxy will harden in 24 hours. Full hardness will be achieved in 3 days. Faster curing can be achieved at elevated temperatures, eg. 80°C for 2 hours.

Recommended Cure

Cure condition:

Temperature, °C	Gel time	Cure time
25	6 hours	24 hours
80	30 mins	2 hours

Curing could be impacted by many factors such as area, thickness, humid environment, and it is recommended to evaluate an optimized curing profile for respective application.

Storage & Shelf Life

This product has a 12 months shelf life from date of manufacturing, unless otherwise specified, when stored at room temperature in the original and unopened container. Store the product at dark and cool place.

Packaging

- 1kg plastic bottle
- 5kg plastic bottle

Other packaging enquiry, please contact our sales department.

Environment, Health & Safety

This product is intended for industrial use only. For more safety information, please refer to Product Safety Data Sheet (SDS).

General Information

All right reserved. This information in this document is subjected to change without notice.

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