

Description

PT605 is a two-part flexible black potting compound based on epoxy resins. When fully cured the surface is glossy, bluish free and soft. 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

- Rigid and flexible
- It has good wetting properties on most substrates
- It is able to flow between narrow gaps and fill up small spaces between components
- Recommended operating temperature range: -40 to 100°C

Applications

- Flexible black potting epoxy for electrical and electronic devices.

Uncured Properties	Typical Value	Unit	Test Method
Color (Part A)	Black	-	PEN 10
Color (Part B)	Clear Yellowish	-	PEN 10
Color (Mixed)	Black	-	PEN 10
Viscosity at 25°C (Part A)	25,600	cP	PEN 144
Viscosity at 25°C (Part B)	118	cP	PEN 144
Viscosity at 25°C (Mixed)	2,625	cP	PEN 144
Mix ratio (A:B)	2:1	-	N/A
Pot Life at 25°C	2	Hour	PEN 57
Specific gravity (Part A)	1.59	-	PEN 14
Specific gravity (Part B)	0.98	-	PEN 14
Cured Properties		Unit	Test Method
Hardness	80	Shore A	PEN 29
Density	1.37	g/cm ³	PEN 61
Tensile strength	7.0	MPa	PEN 41
Elongation at break	52	%	PEN 41
Glass Transition Temperature, T _g	24	°C	PEN 64
CTE, α-1	40	ppm/K	PEN 64
, α-2	181	ppm/K	PEN 64
Thermal conductivity	1.1	W/mK	ISO/DIS 22007
Dielectric Strength (5kV)	Pass	-	ASTM D149-09
Outgassing:			
i) Liquid phase (30°C-150°C)	<1.0	%	PEN 92
ii) Solid phase (30°C-150°C)	<0.6	%	PEN 92
iii) Solid phase (30°C-200°C)	<1.5	%	PEN 92
5% Material Degradation Temperature	340	°C	PEN 92
Operating temperature range	-40 to 100	°C	PEN 92

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

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

* Viscosity was measured by CAP2000+, Part A- C06, 100rpm, 25.0°C; Part B- C01, 500rpm, 25.0°C; Mixed- C01, 5rpm, 25.0°C

Revision 15: 29-Nov-2022

Penchem Technologies Sdn Bhd (767120-A),

Address: 1015, Jalan Perindustrian Bukit Minyak 7, Kawasan Perindustrian Bukit Minyak, Mk.13, 14100 Penang, Malaysia.

Tel: +604-501 5976, 77, 78

Email: enquiry@penchem.com Website: www.penchem.com



* Density, Hardness, Tensile, Tg, CTE and Outgassing solid phase specimens were cure at 80°C/3hrs.

Guideline of Use

Direction for use

- 1) Stir filled material thoroughly prior to use.
- 2) 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.
- 3) Degas thoroughly in a vacuum chamber. Continue defoaming until no bubbles observed.
- 4) Apply the product on area to be filled.
- 5) This product may be dispensed with a variety of manual and automatic applicators or other equipment as required. The user is responsible to determine the suitability of the product for all intended uses.
- 6) It is recommended to use the product within work life. The work life varies by difference environment condition and application.
- 7) The substrate should be clean and free from grease, mold release, or other contaminants prior to dispensing the adhesive.

Recommended Cure

Cure condition:
25°C/24hrs or 80°C/3hrs

Full cured properties will be achieved after 3 days at room temperature. Cure time and temperature may vary based on application requirements, as well as mixture volume, substrate, curing equipment, oven loading and actual oven temperatures.

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.

Packaging

- 1kg plastic pail
- 5kg plastic pail

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.

Revision 15: 29-Nov-2022

Penchem Technologies Sdn Bhd (767120-A),

Address: 1015, Jalan Perindustrian Bukit Minyak 7, Kawasan Perindustrian Bukit Minyak, Mk.13, 14100 Penang, Malaysia.

Tel: +604-501 5976, 77, 78

Email: enquiry@penchem.com Website: www.penchem.com

