LINQBONDTM **PM-1231BK** Two-Part Black Epoxy Potting Material



- High resistance against weathering, aging, and UV radiation
- Non-corrosive, insulating, moisture-proof, and shock-resistant
- Solvent-free, environmentally friendly, and low in carbon footprint

LINQBOND PM-1231BK is a two-component potting epoxy designed for casting, bonding, and sealing electronic components. It boasts outstanding aging and moisture resistance, excellent electrical insulation, high hardness, and a high breakdown voltage. Additionally, **PM-1231BK** offers exceptional weather, UV, and shock resistance, while remaining non-corrosive and environmentally friendly. **LINQBOND PM-1231BK** is well-suited for potting high power electronic components and modules that require high heat dissipation and flame retardancy. **LINQBOND PM-1231BK** is the opaque version of **OPTOLINQ PM-1231**.

Premixed properties

Property	Part A	Part B
Appearance	Black Liquid	Brown Liquid
Viscosity	18000 cP	100 cP
Density	1.80 g/cm ³	1.1 g/cm ³
Shelf life	183 days	183 days

Mixed properties

Property	Value	Unit
Mixing ratio by Weight	5:1	-
Pot Life	1	h
Full Curing Time	48	h

Cured properties

Property	Value	Unit
Shore Hardness	>80	Shore D
Linear Shrinkage Rate	0.5	%
Moisture Absorption	<0.15	%
Operating Temperature	-40 to 90	°C
Thermal Conductivity	0.7	W/m·K
Dielectric Strength	≥25	kV/mm
Volume Resistance	1.2×10 ¹⁴	Ω·cm
Compressive Strength	90	MPa
Flexural Modulus	2	GPa
Flammability	V-0	UL-94

Europe

Industrieweg 15E, 1566JN Assendelft The Netherlands Phone: +31 (20) 893 2224 Email: info@capling.com Canada 80 Sirocco Crescent Ottawa ON, K2S 2C9 Canada Phone: +1 (613) 482-2215 Email: info@caplinq.com



North America 36927 Schoolcraft Rd Livonia, MI 48150 United states Phone: +1 (313) 558-8243 Email: info@caplinq.com

South East Asia

S-08-07 Persiaran Triangle B Lepas, Penang 11900 Malaysia Phone: +60(12)4302223 Email: info@caplinq.com



Recommended curing conditions: Cure at 25°C for 48 h or at 55°C for 7-8 h.

These guidelines offer recommended curing parameters. Define the exact curing parameters to align with your product specifications.

Processing Instructions

- 1. Before potting, make sure the surface is clean. Remove any oil or dust.
- 2. Mix component A and B according to specified ratio. Stir thoroughly to ensure uniformity while preventing air to be introduced into the mixture. Automatic mixing and filling machine can be used. Scrape the sides of the container to ensure even mixing until the color is consistent throughout.
- 3. Use the mixture within 30 minutes.
- 4. Allow the potted workpiece cure at room temperature until the surface is dry. Full curing typically occurs within 48 hours. The curing process is influenced by temperature variations; generally, higher temperatures result in faster curing, while lower temperatures lead to slower curing.

Precautions for Use

- 1. Before use, thoroughly mix Part A. Stratification may occur during long-term storage due to its high specific gravity. Mixing ensures consistent product performance. Do this in a well-ventilated area.
- 2. Use all of the mixed Part A and B at once. Seal and store any components for future use.
- 3. Typically, keep the potting thickness within 30mm. For deeper potting, contact the manufacturer for guidance.

Please note that the provided information is based on available data and typical conditions. For specific applications and detailed test results, refer to the actual test data and conduct appropriate certifications.

Storage and Handling

Store in a ventilated, dry, and clean environment at 10-30 °C. Keep away from fire and heat sources. It is strictly forbidden to store in outdoor environments. At proper storage conditions, Part A and Part B has a shelf life of 6 months. Shelf life can be extended by using cold storage.

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