

Technical data sheet



Product: MT3808

Manufacturer: PERMABOND ENGINEERING ADHESIVES

Product group: KLEBSTOFF

Article group: 2-K KLEBSTOFF

Download: 06.05.2024

PERMABOND® MT3808

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Features & Benefits

- Adhesion to a wide variety of substrates
- Full cure at room temperature
- Easy to apply
- Soft & flexible
- Self leveling
- Low viscosity

Description

PERMABOND® MT3808 is a 10:1, two-part, modified epoxy adhesive designed for potting applications. It has excellent adhesion to Nylon, ABS, Polycarbonate and other plastics. When cured, this adhesive is soft and reasonably flexible. Its low viscosity makes it suitable for potting intricate parts.

Physical Properties of Uncured Adhesive

	MT3808A	MT3808B
Chemical composition	Epoxy Resin Based	Polyamine Hardener
Appearance	Black	Amber
Viscosity @ 25°C	20rpm: 6,000 – 10,000 mPa.s (cP) 2rpm: 15,000 – 25,000 mPa.s (cP)	50-200 mPa.s (cP)
Specific Gravity	1.25	1.00

Typical Curing Properties

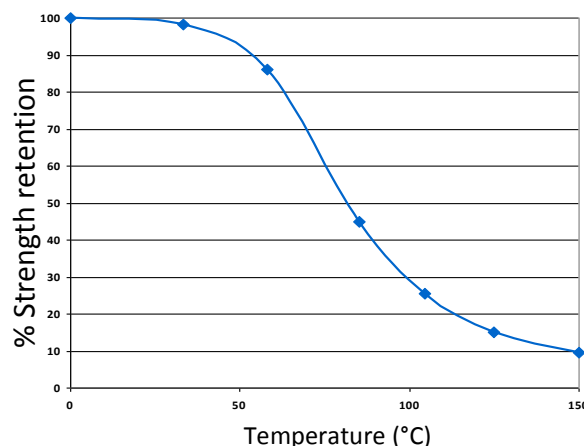
Mix ratio	10:1 by volume 12.5:1 by weight
Maximum gap fill	2 mm 0.08 in
Usable / pot life @20°C	10-12 mins
Handling time	25-30 mins
Full cure	≥72 hours

Typical Performance of Cured Adhesive

Shear strength (mild steel)*	6 - 8 N/mm ² (900 - 1200 psi)
Peel strength (ISO 4578)*	60-80 N/25mm (13-18 PIW)
Hardness	75-85 Shore A 20-30 Shore D
Elongation at break	200%
Glass transition temperature Tg	+40°C (104°F)

*Strength results will vary depending on the level of surface preparation and gap.

Temperature Resistance



MT3808 can withstand higher temperatures for brief periods (such as for paint baking and wave soldering processes) providing the joint is not unduly stressed. The minimum temperature the cured adhesive can be exposed to is -40°C (-40°F) depending on the materials being bonded.

Additional Information

This product is not recommended for use in contact with strong oxidizing materials.

Information regarding the safe handling of this material may be obtained from the material safety data sheet (MSDS).

Users are reminded that all materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene.

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full-scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

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Surface Preparation

Surfaces should be clean, dry and grease-free before applying the adhesive. Use a suitable solvent (such as acetone or isopropanol) for the degreasing of surfaces. Some metals such as aluminium, copper and its alloys will benefit from light abrasion with emery cloth (or similar), to remove the oxide layer.

Directions for Use

1. Measure volumetrically 10 parts resin to 1 part hardener. Mix thoroughly taking care not to entrap air. Adhesive can be applied and mixed by automated dispensing equipment.
2. Apply material. If potting; take care to fill component and not entrap air.
3. If bonding a joint, assemble the parts. Parts must be joined within 10 minutes of mixing the two epoxy components.
4. Large quantities and/or higher temperature will decrease the usable life or pot life.
5. Apply pressure to the assembly by clamping for 25-30 minutes or until handling strength is obtained.
6. Full cure will be obtained after a minimum of 72 hours at 25°C (77°F). Heat can be used to accelerate the curing process.

NB. Exercise caution when mixing large quantities due to exothermic reaction.

Storage & Handling

Storage Temperature	5 to 25°C (41 to 77°F)
Shelf Life Stored in original unopened containers <i>May require shaking or stirring if contents have settled.</i>	12 months

Other Products Available

Anaerobics

- Toughened
- Gas & water approved
- High temperature resistance
- Flexible

Cyanoacrylates

- Low bloom / low odour
- Flexible
- High temperature resistance

Epoxies

- Fast cure
- Toughened
- Flexible grades

Toughened Acrylics

- Rapid cure
- Low odour
- Pre-mixed
- Gap filling

UV Light Cured

- Glass / plastic bonding
- Optically clear
- Non-yellowing

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