

Features & Benefits

- 💧 Foaming adhesive giving low final density
- 💧 Adhesion to a wide variety of substrates
- 💧 Full cure at room temperature
- 💧 Easy to apply
- 💧 Good gap fill ability

Description

PERMABOND[®] MT3827 is a two part, modified epoxy adhesive that foams during curing and is designed for sealing, bonding and potting applications. It has excellent adhesion to Polycarbonate, ABS, Nylon and other plastics as well as a variety of metals.

Physical Properties of Uncured Adhesive

	MT3827A	MT3827B
Chemical Composition	Epoxy resin	Polyamine
Appearance	Black	Grey
Mixed Appearance	Charcoal black	
Viscosity @ 25°C	50,000-100,000mPa.s (cP)	5,000-10,000 mPa.s (cP)
Specific Gravity	1.35	1.25

Typical Curing Properties

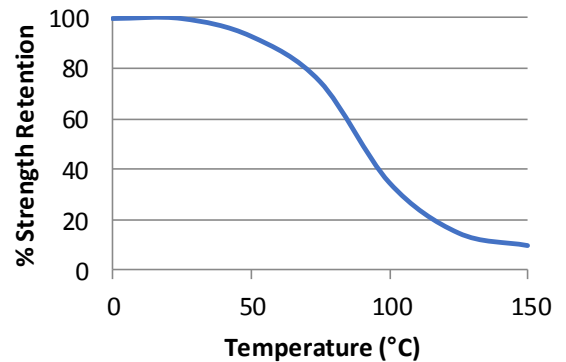
Mix ratio	2:1 by volume
Maximum gap fill	>5 mm (0.2")
Usable / pot life @25°C	30-40 mins
Handling time	4-5 hours
Full cure	≥72 hours

Typical Performance of Cured Adhesive

Shear strength ISO4587	0.5-1.0 N/mm ² (73 - 145psi)
Specific Gravity	0.4-0.45
Elongation at break	150 -250%
Peel strength	30-40 N/25mm

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

Hot Strength



MT3827 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 (SDS).

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

This Technical Datasheet (TDS) offers guideline information and does not constitute a specification.

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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 2 parts resin to 1 part hardener. Mix components thoroughly to remove all streaks.
2. Apply material.
3. Material should be used within 30-40 minutes of mixing.
4. Large quantities and/or higher temperature will decrease the usable life or pot life.
5. Do not disturb for at least 4-5 hours.
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.

Video Links

Surface preparation:

<https://youtu.be/8CMOMP7hXjU>



Two-part epoxy directions for use:

<https://youtu.be/GRX1RyknYqc>



Storage & Handling

Storage Temperature	5 to 25°C (41 to 77°F)
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