

Permabond ET505 is a structural, room-temperature curing, epoxy adhesive that will bond to a wide variety of surfaces such as wood, metal, ceramics and many plastic and composite materials. It exhibits good resistance to petrol, oils and water and has an extended cure-time making it more suitable for larger applications or batch production processes.

### Physical Properties

	ET505A	ET505B
<b>Chemical Type</b>	Epoxy Resin	Polyamide Hardener
<b>Colour</b>	Colourless	Amber
<b>Viscosity</b>	23,000 mPa.s	17,500 mPa.s
<b>Density</b>	1.2	1.0

### Typical Performance

<b>Mix Ratio</b>	By volume	1:1
<b>Gap Fill</b>		Up to 2mm
<b>Usable Life</b>	Mixed @ 20°C	2 hours
<b>Working Strength</b>		3 hours
<b>Full Strength</b>		72 hours
<b>Shear Strength</b>	ASTM D-1002	21 MPa (steel)
<b>Peel Strength</b>	ISO4578	60 N/25mm
<b>Shore D Hardness</b>		73
<b>Elongation at break</b>		10%
<b>Service Temperature*</b>		-40 to +80°C

\*Higher temperatures may be endured for short periods providing the parts are not unduly stressed.

### Surface Preparation

Surfaces should be clean, dry and grease-free before applying the adhesive. Permabond Cleaner A is recommended for the degreasing of most 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.

### Adhesive Application

- If dispensing from a cartridge, ensure back pistons are level before using the adhesive. Attach static mixing nozzle and apply using a dispensing gun.
- For bulk application, ensure the resin and hardener are thoroughly mixed and in the correct proportion.
- Apply the adhesive to one surface and avoid entrapping air.
- Assemble parts applying sufficient pressure to ensure the adhesive spreads to cover the entire bond area.
- Use a jig / clamp to prevent parts moving during cure.
- It is advisable not to disturb the joint until the adhesive is fully cured.

### Storage and Handling

<b>Storage Temperature</b>	5 to 25°C
<b>Shelf Life</b> Stored in original unopened containers	12 months

Users are reminded that all materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene. Full information can be obtained from the Material Safety Data Sheet.

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