





### Features & Benefits

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

### Description

**PERMABOND<sup>®</sup> MT3821** is a 2:1, two-part, modified epoxy adhesive designed for sealing and bonding. It has excellent adhesion to Nylon, ABS, Polycarbonate and other plastics as well as a variety of different metals. When cured, this adhesive is soft and flexible.

### Physical Properties of Uncured Adhesive

	MT3821A	MT3821B
Chemical composition	Epoxy Resin	Polyamine based Hardener
Appearance	Black	Charcoal Black
Mixed appearance	Black	
Viscosity @ 25°C	200,000 mPa.s (cP) Thixo paste	100,000 mPa.s (cP) Thixo paste
Specific gravity	1.3	1.7

### Typical Curing Properties

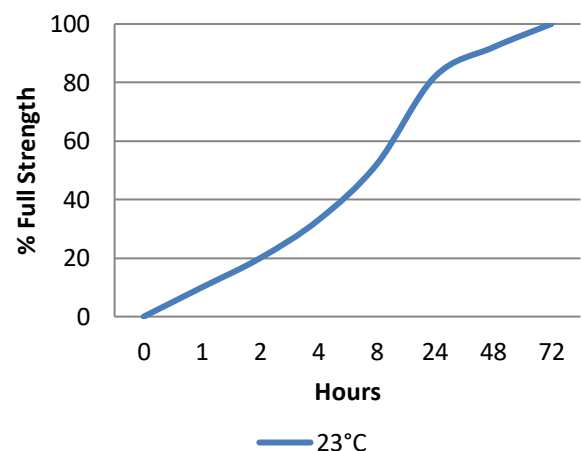
Mix ratio	2:1 by volume 130:85 by weight
Maximum gap fill	5 mm <b>0.2 in</b>
Usable / pot life @25°C	10-20 mins
Handling time to 0.1 N/mm <sup>2</sup> @25°C	60-90 mins
Full cure @25°C	≥72 hours

### Typical Performance of Cured Adhesive

Shear strength ISO4587	Mild steel: 4-7 N/mm <sup>2</sup> ( <b>600 - 1000psi</b> ) Aluminium: 6-8 N/mm <sup>2</sup> ( <b>900-1200psi</b> ) ABS: 4-6 N/mm <sup>2</sup> ( <b>600-900psi</b> ) Acrylic: 2-5 N/mm <sup>2</sup> ( <b>300-700psi</b> ) Nylon: 2-4 N/mm <sup>2</sup> ( <b>300-600psi</b> ) Polycarbonate: 4-6 N/mm <sup>2</sup> ( <b>600-900psi</b> ) PVC: 3-5 N/mm <sup>2</sup> ( <b>400-700psi</b> ) FRP Glass Epoxy: 5-7 N/mm <sup>2</sup> ( <b>700-1000psi</b> ) FRP Glass Polyester: 5-7 N/mm <sup>2</sup> ( <b>700-1000psi</b> ) Carbon Fibre: 6-8 N/mm <sup>2</sup> ( <b>600-1200psi</b> )
Hardness	55-85 Shore A 20-30 Shore D
Elongation at break	100-150%
Peel strength (aluminium)	140-160 N/25mm ( <b>31-36 PIW</b> )

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

### Strength Development



Graph shows typical strength development of bonded components at 23°C. Curing at higher or lower temperatures may affect cure speed.

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