

Permabond TA437 is a single component structural acrylic adhesive designed primarily for bonding metals, ferrites and ceramics. The typical fixture time of TA437 when used with Activator 41 is 30 – 45 seconds. The fast fixture time of TA437 makes it an ideal adhesive for high speed production lines. When the use of the activator is not desirable, the material can be used by itself but the fixture time will be 3-5 minutes. This product provides high strength, tough, durable bonds with good impact resistance

### Physical Properties

<b>Chemical type</b>	Urethane methacrylate
<b>Colour</b>	Orange
<b>Viscosity</b>	120,000 mPa.s
<b>Flashpoint</b>	93°C
<b>Density</b>	1.1

### Typical Performance

<b>Gap fill</b>	Up to 0.5mm
<b>Fixture time*</b>	3-5 minutes
<b>Working strength</b>	30-60 minutes
<b>Full strength</b>	24 hours
<b>Shear strength</b>	20 MPa (steel)
<b>Peel strength</b>	10 N/25mm
<b>Tensile strength</b>	25 MPa
<b>Coefficient of thermal expansion</b>	80 x 10 <sup>-6</sup> 1/K
<b>Thermal conductivity</b>	0.1 W/m <sup>2</sup> K
<b>Service Temperature</b>	-30 to +200°C

\*Fixture time can be reduced to 30-45 seconds by using Permabond Initiator 41 in conjunction with TA437.

### 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

- Surfaces must be clean, dry and grease-free prior to bonding.
- Apply TA437 to one surface. If using Initiator 41 for faster handling strength, this should be applied to the second surface.
- Assemble parts.
- Maintain pressure until handling strength is achieved. The time required will vary according to the joint design and surfaces being bonded.
- Allow 24 hours for adhesive to fully cure. Accelerated cure times may be achieved by heating.

### 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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