

Permabond UV610 is a single part, fast setting, UV cured adhesive designed specifically for the bonding of glass and metal. Its high strength makes it suitable for a wide variety of applications including glass furniture where it is possible to create high strength edge joints.

### Physical Properties

<b>Chemical Type</b>	<b>Methacrylate Ester Single Part</b>
<b>Colour (when cured)</b>	<b>Opaque</b>
<b>Viscosity @ 25°C mPa.s</b>	<b>900</b>
<b>Maximum Gap Fill</b>	<b>0.3 mm</b>
<b>Density</b>	<b>1.1</b>
<b>Cure Wavelength</b>	<b>365 - 400 nm</b>
<b>Cure time (4 mW/cm<sup>2</sup>)</b>	<b>11 seconds</b>

\* Actual cure times will depend the power of the UV lamp, its spectral output, the distance between the lamp and the components, and the transmission characteristics of the substrates. The handling time quoted here was determined using a low power, hand held lamp. Most industrial UV light sources would give a faster rate of cure.

### Performance

<b>Shear Strength</b>	Glass/Steel	<b>13 MPa</b>
<b>Tensile Strength</b>	ASTM D-2095	<b>16 MPa</b>
<b>Refractive Index</b>		<b>1.47</b>
<b>Elongation</b>		<b>95%</b>
<b>Hardness</b>		<b>70 Shore D</b>
<b>Service Temp.*</b>		<b>-55 to +120°C</b>
<b>Dielectric Strength</b>		<b>12 KV/mm</b>
<b>Dielectric Constant</b>	1MHz @25°C	<b>4</b>

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

### Surface Preparation

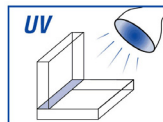
Surfaces should be clean, dry and grease free before applying the adhesive. Particular care should be taken to remove silicone based cleaning agents which may have been used previously to clean glass. Some metals such as aluminium, copper and its alloys will benefit from light abrasion with emery cloth, or similar, to remove the oxide layer. Permabond Cleaner A can be used to degrease most surfaces. Where thermoplastic surfaces are involved we recommend tests are done to ensure compatibility.

### Adhesive Application

Adhesive can either be applied directly from the bottle or dispensed via automated dispensing equipment for more accurate dosing.

It is important to try to prevent air entrapment within the joint as this could be detrimental to the finished appearance of the adhesive.

Parts should be firmly held and not disturbed during cure as this could lead to a 'crazing' effect. Expose the joint to ultra-violet light for the appropriate time to ensure full cure.



For help selecting a suitable lamp and/or dispensing equipment, please contact the Permabond technical helpline.

### Storage and Handling

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

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

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