

# Permabond UV Curables

*Permabond UV-curable adhesives are single part, cure on demand adhesives suitable for bonding a wide variety of substrates. Upon exposure to UV light, Permabond UV curables will cure to a high strength in a matter of seconds.*

## **Permabond UV curable adhesives are suitable for a variety of applications.**

They are excellent for bonding glass to glass or glass to metal and form very high strength bonds for load bearing joints, such as those found in glass furniture and display cases.

Flexible and stress absorbing, Permabond UV curable adhesives are available for use in applications that require substrates with different thermal expansions to be bonded.

Permabond UV curable adhesives bond a wide variety of plastics. Most common plastics are available in UV transmitting grades. Some clear plastics contain UV stabilizers that block the transmission of light. Permabond's technical staff can help you identify the UV characteristics of the plastic you are using.

## **Permabond UV curable adhesives form strong and durable bonds.**

Permabond UV curable adhesives cure during exposure to ultra violet light. The adhesives contain photo-initiators that react to specific wavelengths, causing the curing process to begin.

UV adhesives do not dissolve, melt or weaken the two components. They form strong chemical bonds between the two substrates and provide a high strength alternative to other joining methods.

Lamps are available in a variety of intensities from small inexpensive hobby type lamps to larger high intensity units for high speed production. Permabond will help you select the equipment best suited to your specific application.



## **Benefits of Permabond UV curable adhesives:**

- ▶ Cure on Demand - allows proper alignment of components before bonding.
- ▶ Speed - increase production by simply adding more lamps to the line.
- ▶ Non-flammable and Solvent-free - provides a safe and comfortable work environment.
- ▶ Single Part Product - No mixing required. 100% solids equal no waste.
- ▶ Save energy and space - UV lamps require less electricity and space compared to ovens.
- ▶ Appearance - UV adhesives provide a pleasing finished appearance.
- ▶ Technical Support- application specialists available for assistance with joint design, adhesive selection and production process.

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Engineering Adhesives

## Permabond UV-Curable Adhesives Selector Guide

This table represents a selection of the complete range of Permabond UV-curable adhesives. For more detailed technical information and Technical Data Sheets please visit [www.permabond.com](http://www.permabond.com). To discuss your specific application requirements, please call the Permabond Helpline, our technical advisors will recommend the best adhesive from our existing product line or assist in developing a custom formulation.

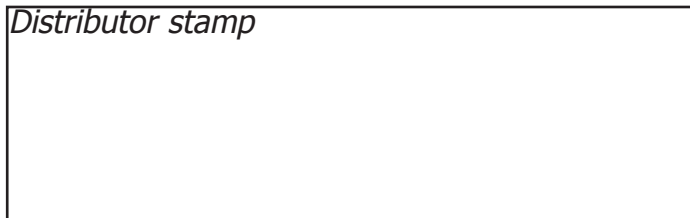
Grade	Primary Application	Colour	Viscosity (mPa.s)	Depth of cure, mm (lamp 30mW/cm)	Fixture time (seconds) Low powered 4mW/cm lamp	Tensile Strength (MPa)	Lap Shear Strength (MPa)	Shore D Hardness	Refractive Index	Elongation %	Service Temp.(°C)
<b>UV610</b>	High strength bonding for glass and metal	Opaque	900	0.6 (10 second exposure)	11	16	13 glass/metal	70	1.47	95	-55 to +120°C
<b>UV620</b>	General purpose	Clear, colourless	2,500	0.75 (5 second exposure)	5	14	9 glass/metal	62	1.47	75	-55 to +120°C
<b>UV625</b>	Non-drip for bigger gaps and vertical application	Clear, colourless	Gel	0.7 (5 second exposure)	5	15	10 glass/metal	65	1.47	40	-55 to +120°C
<b>UV630</b>	For plastic bonding	Pale amber (colourless when cured)	250	0.2 (5 second exposure)	6	12	9 polycarbonate (substrate failure)	60	1.47	110	-55 to +120°C
<b>UV640</b>	For plastic bonding	Pale amber (colourless when cured)	3,500	0.4 (5 second exposure)	7	11.5	9 polycarbonate (substrate failure)	59	1.47	110	-55 to +120°C
<b>UV670</b>	Flexible for metal / metallized plastic bonding	Colourless	2,500	0.6 (5 second exposure)	7	10	8 glass/metal	58	1.47	85	-55 to +120°C

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The variables affecting cure speed include the wavelength and intensity of the light source, distance from the light to the bond site, UV transmission of the components, and the thickness of the adhesive. Permabond's technical staff will assist you with the right combination for your application.

*Distributor stamp*



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The information given and the recommendations made herein are based on our experience and are believed to be accurate. No guarantee as to, or responsibility for, their accuracy can be given or accepted, however, and no statement herein is to be treated as a representation or warranty. In every case we urge and recommend that purchasers, before using any product, make their own tests to determine, to their own satisfaction, its suitability for their particular purposes under their own operating conditions.