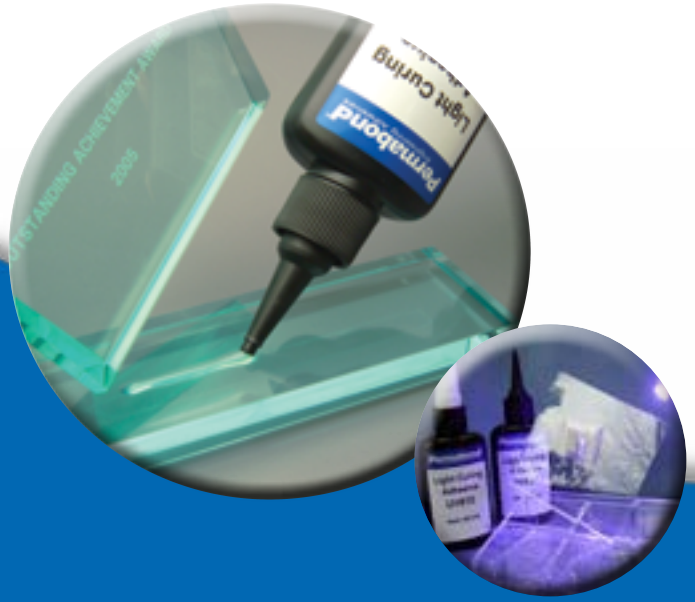
Permabond® UV-Curable Adhesives

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 suited to applications where substrates with different thermal expansions need to be bonded.

Permabond UV curable adhesives bond a wide variety of plastics. Some clear plastics contain UV stabilizers that block the transmission of UV light, however, Permabond has formulated plastic bonding adhesives with UV and visible light curing capabilities to allow these plastics to be bonded. Permabond's technical staff can help you identify the UV transission characteristics of the plastic you are using and assist you with selecting the best product for your application.



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 of light to cure the adhesive.

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.

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

Benefits

- 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 - supports a safe and comfortable work environment.
- Single part product - No mixing required.
- 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.
- 100% solids = No waste.

Permabond®
Engineering Adhesives

Permabond UV-Curable Adhesives Selection 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. To discuss your specific application requirements, please call the Permabond Helpline. Our technical advisors will recommend the best adhesive from our existing range or assist in developing a custom formulation.

Grade	Primary Application	Appearance	Viscosity mPa.s = cPs	Tensile strength (N/mm²)psi	Shear strength (N/mm²) psi	Hardness	Refractive Index	Elongation %	Service Temp. (°C) °F
UV610	High strength bonding for glass to metal.	Translucent	800-1000	(17) 2500	Glass to steel (13-16) 1900-2300	65-75 Shore D	>1.490	95	(-55 to +120) -65 to +250
UV620	General purpose, optically clear.	Clear, colourless	2200-2900	(16) 2300	Glass to steel (9-10) 1300-1450	60-75 Shore D	>1.490	>80	(-55 to +120) -65 to +250
UV625	Non-drip for larger gaps and vertical applications.	Clear, colourless	20rpm: 30,000-55,000 2rpm: 120,000-250,000	(16) 2300	Glass to steel (6-10) 870-1450	60-70 Shore D	>1.490	>60	(-55 to +120) -65 to +250
UV630	Low viscosity, plastic bonding.	Clear, colourless	200-300	(14) 2000	PC to PC* (>9) >1300	60 Shore D	>1.490	110	(-55 to +120) -65 to +250
UV632	Low viscosity, plastic bonding, excellent adhesion to acrylic.	Clear, colourless	200-400	(13) 1900	PC to PC* (>9) 1300	55-75 Shore D	>1.490	>70	(-55 to +120) -65 to +250
UV639	Plastic bonding, ideal for PETG	Clear, colourless	800 - 1,200	(13) 1900	PETG to PETG (>5) >725 psi*	80 Shore A	>1.490	>200%	(-55 to +120) -65 to +250
UV640	Medium viscosity, plastic bonding.	Clear, colourless	20rpm: 3000-5000 2,5rpm: 12,000-25,000	(13) 1900	PC to PC* (>9) >1300	55-75 Shore D	>1.490	110	(-55 to +120) -65 to +250
UV648	Medium viscosity, plastic bonding. excellent adhesion to acrylic.	Clear, colourless	20rpm: 20,000-40,000 2rpm: 120,000-180,000	(11) 1600	PC to PC* (>9) >1300	50-65 Shore D	>1.490	>70	(-55 to +120) -65 to +250
UV670	Flexible for metal and metallized plastics.	Clear, colourless	2000-3000	(12) 1700	Glass to steel (6-10) 870-1450	50-60 Shore D	>1.490	>80	(-55 to +120) -65 to +250
UV681	Tack-free coating	Clear, colourless	80-120	(11) 1600	-	50-65 Shore D	>1.490	>50	(-55 to +120) -65 to +250
UV683	Tack-free doming	Clear, colourless	1000-1600	(13) 1900	-	50-65 Shore D	>1.490	>50	(-55 to +120) -65 to +250
UV6160	Optically clear, even in high-stress joints	Clear, colourless	1000-2000	(20) 2900	Glass to steel (11) 1600	65-75 Shore D	>1.490	100-150	(-55 to +120) -65 to +250
UV6231	Excellent environmental resistance	Clear, colourless	5000-8000	(10) 1450	Glass to steel (10) 1450	45-50 Shore D	>1.490	>120	(-55 to +120) -65 to +250
UV7141	UV and anaerobic curing. For bonding ceramic coated glass, mirrors, glass and metal	Clear, colourless	1000-1700	(20) 3000	Glass to steel (14-17) 2000-2500	60-70 Shore D	1.490	20-50	(-55 to +150) -65 to +300

Cure speed: normally UV adhesives will cure in a matter of seconds. 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.

PC = Polycarbonate • *Denotes substrate failure • Products are available worldwide.

Permabond Worldwide

Wherever your manufacturing or R&D site may be located, Permabond representatives can be called upon to assist you. We have an extensive network of professional distributors worldwide.

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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. Always refer to current product technical datasheet for most recent and accurate technical information.