Glass Bonding Adhesives

Permabond adhesives are suitable for a variety of applications on decorative and structural glass. 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.

Application: TV Cabinets

Sleek, contemporary glass furniture is all the rage nowadays. Visible fixtures and fittings are not desirable so adhesives are the ideal alternative method of fixing components whilst still keeping smooth lines and an aesthetically pleasing finish.

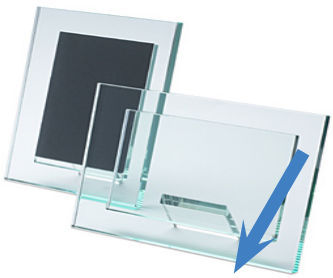
Beneath the outward appearance of furniture items are the more crucial factors of joint strength, durability and of course, safety. Therefore adhesives used must not only look good, but they must tick all boxes in terms of performance.

Benefits of Permabond UV adhesives:

- Non-flammable
- 100% solids
- Clear & non-yellowing
- Flexible to cope with differential thermal expansion and contraction between glass and metal surfaces
- Excellent impact, vibration and thermal shock resistance
- No weighing or mixing required
- Adhesive proved higher strength than substrate materials - i.e. the bond was stronger than the toughened glass cabinet top.

Adhesive used: Permabond UV610

Application: Photo Frames



- Optically clear adhesive for bonding novelty photo frames
- Non-yellowing
- Rapid cure for high-speed production line
- Able to be used on awkward butt-joint configuration
- Excellent long-term durability on glass

Adhesive used: Permabond UV620

Application: Bonding glass display cabinets

Glass display cabinets are commonly found in shops, exhibition centres, museums, company reception areas and in the home for displaying products, collections and precious items. Modern high-quality minimalistic cabinets are made without traditional metal fixtures and fittings which can spoil the look. Permabond UV625 non-drip gel is ideal for the high strength bonding of edges and shelves.

Adhesive used: Permabond UV625

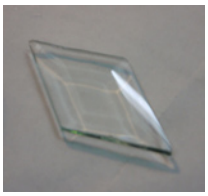
Application: Bevel bonding for decorative glass windows

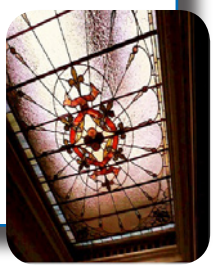
Permabond has developed a special "bevel Bonder" suitable for bonding decorative glass bevels for windows, skylights and atriums.

Key features include:

- Excellent resistance to UV-yellowing
- Low viscosity for minimal air entrapment
- Slow cure to allow easy clean up of excess adhesive around the bevel
- Excellent optical clarity

Adhesive used: Permabond UV612





UV7141Application: Bonding Liquid Crystal Displays

- Invisible bond = seamless modern appearance
- Non-yellowing
- Easy to apply
- Rapid cure for high-speed production line

Adhesive used: Permabond UV620

Application: Lens Bonding

- Invisible bond does not affect lens performance
- Non-yellowing
- Low viscosity to reduce air entrapment

Adhesive used: Permabond UV610

Hinge Bonded with

Permabond also offers dual cure UV adhesives for curing in shadow areas e.g. in aluminium extrusions and for mirror fixings.

Product selector

Features	Typical Applications	Cure Method	Cure speed (with low powered 4mW/cm lamp	Viscosity (mPa.s) cP	Refractive Index	Shore D Hardness	Maximum Shear Strength Glass to Metal (MPa) psi	Temperature range (°C) °F
Permabond UV610 Low viscosity UV adhesive to minimise air bubble entrapment. Optically clear and non-yellowing.	Lens bonding, furniture bonding	UV-lamp	11 seconds	800 - 1000	1.47	90	(16) *2300*	(-55 to +120) *-65 to +250*
Permabond UV612 Bevel bonding adhesive offering easy clean up	Decorative glass bevel bonding	UV-lamp	15 seconds	400 - 500	1.475		(5) *700*	(-55 to +120) *-65 to +250*
Permabond UV620 High strength, high performance UV adhesive. Ideal for bonding glass to metal.	Glass furniture bonding	UV-lamp	5 seconds	2000 - 3000	1.49	62	(10) *1500*	(-55 to +120) *-65 to +250*
Permabond UV625 Non-drip UV gel. Ideal for vertical applications or where larger gap fill is required.	Glass display cases	UV-lamp	5 seconds	Gel	1.47	65	(11) *1600*	(-55 to +120) *-65 to +250*
Permabond UV7141 Dual cure UV-anaerobic adhesive will cure in shadow areas. Ideal for glass to metal bonding applications. Excellent environmental resistance.	Bonding metal hinges to glass shower doors, mirrored bathroom cabinets and for glass into aluminium extrusion edging.	UV-lamp and anaerobic cure	5 - 20 seconds (UV cure) 30 - 60 mins (anaerobic cure)	1000 - 2000	1.49	35	(17) *2500*	(-55 to +150) *-65 to +300*
Permabond TA4246 Structural acrylic adhesive with brush on initiator and separate resin.	Architectural projects involving high strength glass to metal bonding	Resin & Brush-on initiator	2 - 4 minutes	28,000 - 32,000	-	-	(16) Substrate failure *2300*	(-55 to +120) *-65 to +250*

If you can't see the exact product you are looking for, or need more in depth technical information, Permabond's technical team would be more than happy to help.

Contact Permabond

www.permabond.com
USHelpline - 800-640-7599
- ***UK - 0800 975 9800***
- ***Asia + 86 21 5773 4913***
- ***General Enquiries +44(0)1962 711661***
- ***Deutschland 0800 101 3177***
- ***France 0805 111 388***

info.europe@permabond.com
info.americas@permabond.com
info.asia@permabond.com

Permabond's sales engineers are available to assess your production line and find the best possible turnkey adhesive solution that will result in production efficiencies.

The experienced team of Permabond chemists is on hand to help you with custom formulations and fulfilling your technical data requests.

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 trained distributors worldwide.

Permabond® Engineering Adhesives

MKT_Glass_Rev1