

## Permabond UV645 UV-curable Adhesive

Category : Polymer , Adhesive , Thermoset , Acrylic/Cyanoacrylate Adhesive

### Material Notes:

PERMABOND UV645 is a single part, fast curing, high viscosity UV curable adhesive designed specifically for bonding plastics. This material has excellent adhesion to a variety of plastics including polycarbonate as well as metals and glass. Permabond UV645 has very high shear strength, elongation and impact resistance making it ideal for applications that require substrates with different coefficients of thermal expansion. Permabond UV645 has good depth of curing capabilities which make it suitable for use as a sealant. Protect liquid adhesive from room lighting. Features & Benefits: Cure on demand High shear strength Fast curing with low-power lamps 100% solids, no solvents Excellent adhesion to plastics Information provided by Permabond.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Permabond-UV645-UV-curable-Adhesive.php](http://www.lookpolymers.com/polymer_Permabond-UV645-UV-curable-Adhesive.php)

Physical Properties	Metric	English	Comments
Density	1.10 g/cc	0.0397 lb/in <sup>3</sup>	uncured
Viscosity	10000 - 12000 cP @Temperature 25.0 °C	10000 - 12000 cP @Temperature 77.0 °F	Uncured
Storage Temperature	5.00 - 25.0 °C	41.0 - 77.0 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	65	65	
Tensile Strength	11.0 MPa	1600 psi	ASTM D2095
Elongation at Break	110 %	110 %	
Adhesive Bond Strength	>= 5.00 MPa	>= 725 psi	PVC , Shear
	>= 7.00 MPa	>= 1020 psi	PC to ABS, Shear
	>= 9.00 MPa	>= 1310 psi	Polycarbonate, Shear

Optical Properties	Metric	English	Comments
Refractive Index	1.47	1.47	

Electrical Properties	Metric	English	Comments
Dielectric Constant	4.0 @Frequency 1.00e+6 Hz, Temperature 25.0 °C	4.0 @Frequency 1.00e+6 Hz, Temperature 77.0 °F	
Dielectric Strength	12.0 kV/mm	305 kV/in	

Electrical Properties	Metric	English	Comments
Processing Properties	Metric	English	Comments
Cure Time	0.117 min	0.00194 hour	fixture time, (low power 4mW lamp)
Shelf Life	12.0 Month	12.0 Month	

Descriptive Properties	Value	Comments
Appearance	Clear, colorless	Uncured
Cure Wavelength (nm)	365-420	
Maximum Gap Fill (mm)	0.5	
Strength Retention	10% at 200°C	Relative to 0°C
	100% at 0°C	Relative to 0°C
	30% at 150°C	Relative to 0°C
	75% at 100°C	Relative to 0°C
	95% at 50°C	Relative to 0°C

## Contact Songhan Plastic Technology Co.,Ltd.

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