

# **PENCHEM**

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## **Lidar Sensor Adhesive Selection**

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**PENCHEM TECHNOLOGIES SDN BHD** (767 120-A)  
1015, Jalan Perindustrian Bukit Minyak 7, Kawasan Perindustrian Bukit Minyak, Mk.13, 14100 Penang, Malaysia.  
T: +604-501 5973, 74, 75, 76, 77, 78, 79 E: [enquiry@penchem.com](mailto:enquiry@penchem.com) W: [www.penchem.com](http://www.penchem.com)

Manufacturer of High Performance Polymers

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- SMT Epoxies
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- COB Epoxies
- Potting Epoxies
- Polyurethanes
- Epoxy Sealants
- Silicones
- Thermal Interface Materials
- Fiber Optics Epoxies
- Customized Products



### Fast UV Curing Adhesive

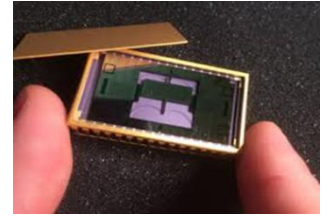
Product	Viscosity cPs@25°C	Hardness	Tg (°C)	Linear Shrinkage (%)	Special Feature
UV773-6	378	D80	168	1.68	Fast Cure UV + Heat Curable Adhesive with high Tg, high reliability, low outgassing, suitable for active alignment and optical bonding. <b>It can be cured fast under low UV intensity.</b>

### Flexible UV + Heat Curable Adhesive

Product	Viscosity cPs@25°C	Hardness	Tg (°C)	Linear Shrinkage (%)	Special Feature
UV784-7	3,112	D75	66	-	Fast Cure UV + Heat Curable Structural Adhesive. It is not flowable, translucent, low outgassing and high reliability, suitable to bond glass substrates.

### High Tg and Low CTE UV + Heat Adhesive

Product	Viscosity cPs@25°C	Hardness	Tg (°C)	Linear Shrinkage (%)	Special Feature
UV788-2	22,800	D86	140	1.61	UV +heat Curable adhesive, high Tg, low CTE, low outgassing NASA, bonding and active alignment under low UV intensity. Suitable for glass bonding, PLC, WMD assembly. <b>Fulfill UBDH 3000hrs reliability.</b>
UV788-6	28,870	D90	<b>208</b>	0.91	UV +heat Curable adhesive, high viscosity, high Tg, extreme low CTE, low outgassing NASA, bonding and active alignment under low UV intensity. Suitable for glass bonding, PLC, WMD assembly. Fulfill UBDH 2000hrs reliability.
UV799-3	19,200	D86	134	1.10	UV +heat Curable adhesive, high Tg, low CTE, low outgassing NASA spec., bonding and active alignment under low UV intensity. Suitable for glass, ceramic, gold nickel, kovar, S/S bonding, PLC, WMD assembly. <b>Fulfill UBDH 2000hrs reliability.</b>
UV799-4SW2	28,870	D90	130	1.19	<b>Shadow curable version</b> for UV799-3, UV788-6, UV88-2. Heat curable at 80C only can still pass UBDH2000hrs.
UV566-26	1,500	D82	142	-	This UV + Heat Curable structural adhesive suitable with low CTE, low shrinkage. Suitable for lens, PCB, metals.



### Structural and Encapsulation Heat Curable Adhesive

Product	Viscosity cPs@25°C	Hardness	Tg (°C)	Linear Shrinkage (%)	Special Feature
EN525	30,820	D90	142	-	Heat curable encapsulant, none flowable, black color, low outgassing and high reliability. Suitable for PCBA, metal bonding.
EN418-2	21,000	D88	136	0.66	Heat curable structural adhesive, black color, high adhesion strength to gold, Nickel, Kovar, PCB, <b>low CTE and low shrinkage</b> . Fulfill UBDH 2000hrs.

### Thermally Conductive Heat Curable Adhesive

Product	Chemical Type	Viscosity cPs@25°C	Hardness	Linear Shrinkage (%)	Special Feature
TH737-1	Epoxy	36,400	D94	2.6	Automatic Dispensable, good reliability, thermally conductive, low outgassing and <b>low temperature curable</b> .
TH737-6	Epoxy	159,900	D91	2.3	Automatic Dispensable, good reliability, thermally conductive, low outgassing.
TH737-7	Epoxy	150,065	D91	2.3	Automatic Dispensable, good reliability, thermally conductive, low outgassing.
TH974-3	Silicone	51,750	A55	3.0	Automatic Dispensable, good reliability, thermally conductive, low outgassing.

### Silicone Gasket

Product	Viscosity cPs@25°C	Hardness	Tg (°C)	Special Feature
GL902-4	Part A:7,500 Part B:7,500	A30	-	2-parts silicone, room temperature and heat curable 2 parts silicone, flowable, black color, high reliability, low outgassing. Suitable for PCBA, metals, plastic for gasket sealing applications.
UV900	17,500	A20	-38	1-part, UV + Moisture curable silicone sealant and gasket. slight flow to non-flow, translucent color, high reliability, low outgassing, suitable for rubber, plastic and metal bonding and gasket applications.

	UV773-6	UV784-11	UV788-2	UV788-6	UV799-3	UV799-4SW2	UV566-26
<b>Application and Feature</b>	High Tg, Active Alignment Optical Bonding	Flexible adhesive Glass-PCB bonding	High Tg, Low CTE, Active Alignment, Glass, ceramic, alumina, PCB bonding.	High Tg, Ultra-Low CTE, Active Alignment, Glass, Ceramic, alumina, PCB bonding.	High Tg, Ultra-Low CTE, Active Alignment, Glass, Ceramic, alumina, PCB, Kovar, nickel, gold bonding.	High Tg, Low CTE, Active Alignment, Glass, Ceramic, alumina, PCB, Kovar, nickel, gold bonding. <b>Shadow curable</b>	High Tg, Low CTE, Structural Adhesive for bonding PEI, PCB, Glass, Metals.
<b>Chemical Type</b>	Epoxy	Epoxy Hybrid	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy
<b>Can filter Near IR</b>	-	-	Can	Can	Can	Can	Can
<b>Shadow curable</b>	Ok, heat curable	Ok, heat curable	Ok, heat curable	Ok, heat curable	Ok, heat curable	Best, heat curable	Ok, heat curable
<b>Viscosity, cPs@25°C</b>	378	3,112	22,800	28,870	19,200	28,870	1,500
<b>Glass Transition, Tg (°C)</b>	168	66	140	203	134	111	142
<b>Hardness, Shore</b>	D80	D75	D86	D90	D86	D90	D82

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	EN525	EN418-2	GL902-4	UV900	TH737-1	TH737-6	TH737-7	TH974-3
<b>Application and Feature</b>	Glob Top and Encapsulant Suitable for PCBA, metals bonding.	Structural adhesive. Suitable for PCB, glass, gold, nickel bonding	Room Temperature, heat curable gasket	UV+ Moisture curable gasket complied with ISO 10993-5	Automated dispensable, high reliability, slight flowable Low outgassing	Automated dispensable, high reliability, none flowable	Automated dispensable, high reliability, none flowable	Automated dispensable, high reliability, none flowable
<b>Chemical Type</b>	Epoxy	Epoxy	Silicone	Silicone	Epoxy	Epoxy	Epoxy	Silicone
<b>Can filter Near IR</b>	Can	Can	Can	Can	Can	Can	Can	Can
<b>Shadow curable</b>	Ok, heat curable	Ok, heat curable	Ok, heat curable	Ok, heat curable	Ok, heat curable	Ok, heat curable	Ok, heat curable	Ok, heat curable
<b>Viscosity, cPs@25°C</b>	30,820	21,000	7,500	17,500	36,000	159,900	150,065	51,750
<b>Glass Transition, Tg (°C)</b>	123	136	-	-38	132	123	123	-
<b>Hardness, Shore</b>	D90	D88	A30	A20	D91	D91	D91	A55

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