

Adelphi HTA5682-1

High Temperature Resists 3200F Water based 0 VOC Heat Cure Adhesive

Adelphi HTA5682-1 is a single component high temperature ceramic and graphite adhesive. Excellent for bonding, potting and sealing ceramics, composites, graphite, metals and quartz where high temperature and moisture resistance is required. It resists temperatures of 3200F and has outstanding alkali resistance. HTA5682-1 is recommended in all type of mechanical, electrical, instruments and sensor applications.

Temperature Limit, °F (°C)	Dielectric Strength, volts/mil @ RT	Viscosity, cps	CTE, in/in/°F x 10-6 (°C)	Application Temperature, °F(°C)	Hrs Air Set, In addition to heat cure	3 Stages of Heat Cure, °F, Hrs	Shelf Life, Months
3200 (1760)	188	40000-70000	4.1 (7.4)	50-90 (10-32)	1-4	200, 2 +500, 2 +700,2	6

Torque Strength, ft-lbs	After curing at 700 °F for 2 hours.		
	Moisture resistance	Alkali Resistance	Acid Resistance
50	Good	Excellent	Good

Applications Include:

- Semiconductors Halogen Lamps
- Heaters
- Igniters
- Fiber Optics
- Resistors
- Semiconductors
- Temperature Probes
- Ceramic Honeycombs

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- Ceramic Textiles
- Graphite Blocks
- Refractory Insulation
- Thread-Locking – Excellent Torque

Surface Preparation

For smooth surfaces etching, abrasive blasting or oxidization is required, followed by thorough cleaning prior to application.

Porous substrates should be pre-coated with a binder to prevent separation and absorption of the adhesive binder.

Preparation of adhesive

Always stir each part thoroughly first. Proportion accurately and mix slowly to avoid entrapping air.

Application

Apply a thin coat of adhesive to each surface using a brush, spatula or dispenser.

Using a clamp or similar tool, maintain a uniform glue line of 2-8mils (200-500 microns) by applying even pressure across the assembly.

Wipe away excess material prior to drying.

Curing

HTA5682-1 requires an air set time of 1-4 hours followed by the heat cure schedule below:

Heat Cure, °F, (°C)	Hours
200 (93)	2
500(260)	2
700(370)	2

Technical Questions? Call us. We are happy to help! +631-537-8390

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