DATA SHEET - A-H21D
UHV glue electrically conducting 250°C - 25g

INTRODUCTION
LewVac A-H21D† is a two component, high Tg, silver-filled epoxy adhesive designed for chip bonding in microelectronic and optoelectronic applications.

ADVANTAGES & APPLICATION NOTES
- Extended pot-life and can be cured at relatively low temperatures such as 80°C.
- Designed to be used in the 300°C range for applications such as wire bonding operations and eutectic lid-sealing processes.
- Contains no solvents or thinners. NASA approved, low outgassing epoxy
- Also suggested for hybrid - aerospace circuits found in Rf / Microwave devices like cockpits and satellites.
- Paste-like rheology allows for application by commercial dispensing equipment, stamping, screen printing, or by hand with spatula or toothpick.
- Compatible with Au-plated ceramic substrates found in traditional and custom hybrids.

Number Of Components	Two
Mix Ratio By Weight:	10:1
Specific Gravity Part A Part B	 2.45 2.14
Pot Life	15 Hours
Shelf Life @ Room Temperature	1 Year
Minimum Bond Line Cure Schedule* @ 150°C @ 120°C @ 80°C	 5 Minutes 15 Minutes 90 Minutes

Note: Container(s) should be kept closed when not in use. For filled systems, mix the contents of each container (A&B) thouroughly before mixing the two together.

TYPICAL PROPERTIES: (To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: 150°C/1 hour. * denotes test on lot acceptance basis)

THERMAL PROPERTIES	
Thermal Conductivity	1.0 W/mK
ELECTRICAL PROPERTIES	
Volume Resistivity @23°C*	≤0.0009 Ohm-cm
OUTGASSING PROPERTIES	
TML %	0.19
CVCM %	0.00

PHYSICAL PROPERTIES	
Colour*	Part A - Silver Part B - Silver
Consistency*	Smooth paste
Viscosity: (20rpm/@ 23°C)*	14,000-20,400cPs
Thixotropic Index	2.62
Glass Transition Temp: (Tg) (Dynamic cure 20-200°C /ISO 25 Min; Ramp -10 - 200°C @ 20°C/Min)	>100°C
Coefficient of Thermal Expansion (CTE): Below Tg Above Tg	 $26x10^{-6}$ in/in/°C $124x10^{-6}$ in/in/°C
Shore D Hardness:	60
Lap Shear Strength @ 23°C	1,504psi
Die Sheer Strength @ 23°C	>5kg/1,700psi
Degradation Temperature: (TGA)	457°C
Weight Loss: @200°C @250°C @300°C	 0.20% 0.21% 0.35%
Operating Temp: Continuous Intermittant	 -55°C to 250°C -55°C to 350°C
Storage Modulus @23°C	712,559psi
Ions: Cl^- Na^+ NH_4^+ K^+	 64ppm 72ppm 121ppm
Particle Size*	≤45 Microns

† Manufactured by - Epoxy Technology, Inc., USA.

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LEWVAC Quality Components For Vacuum Technology

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