Electrically Conductive Adhesives with Enhanced Dispense Properties

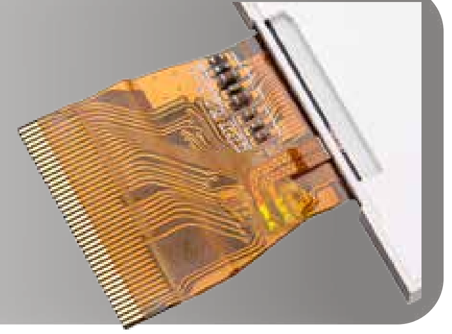
Why choose ECA's with Enhanced Dispense Properties

- Increases reliability for high volume dispense applications
- Minimizes any potential skips or misses in the dispense process
- Able to achieve smaller and more accurate dot sizes

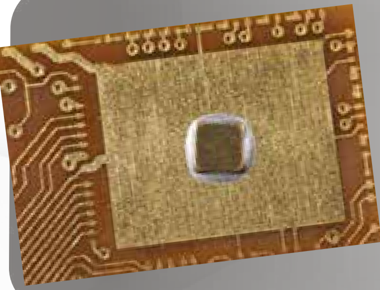
Product	Viscosity (cPs)	TI	Minimum Cure Time	Pot Life	Tg (°C)	VR (ohm-cm)	Particle Size (μm)	Features
H20E	2,200-3,200 @100 rpm	4.63	80°C/3hrs 100°C/2hrs 120°C/15min 150°C/5min 175°C/45sec	2.5 days	≥80	≤0.0004	≤45	Standard Formulation
H20E-D	1,400-1,900 @100 rpm	4.8	100°C/2hrs 120°C/15min 150°C/5min 175°C/45sec	3 days	≥80	0.0004	≤45	**>49,000 10mil dots of H20E-D continuously dispensed with <10 skips**
H20S	1,800-2,200 @100 rpm	5	80°C/3hrs 100°C/2hrs 120°C/15min 150°C/5min 175°C/45sec	3 days	≥80	≤0.0005	≤20	Standard Formulation
H20S-D	1,342 @100 rpm	4.5	100°C/2hrs 120°C/15min 150°C/5min 175°C/45sec	2-3 days	70	0.00014	≤20	**10,000 10mil dots of H20S-D continuously dispensed with no clogs or skips**
H20E-PFC	3,000-4,000 @100 rpm	6.69	80°C/3hrs 120°C/15min 150°C/5min 175°C/45sec	3 days	≥80	≤0.0004	≤20	Standard Formulation
H20E-PFC-D (formerly 111-43-1)	5,280 @50 rpm	5.4	80°C/3hrs 120°C/15min 150°C/5min 175°C/45sec	3 days	84	0.00008	≤20	**H20E-PFC-D designed for jetting applications**
EK1000-1	17,232 @10 rpm	3.7	150°C/1hr 200°C/30min	2 weeks	103	0.00007	≤45	Standard Formulation
EK1000-1D	2,400 @100 rpm	4.8	150°C/1hr 200°C/30min	2 weeks	70	<0.00003	≤45	**15mil dots of EK1000-1D continuously dispensed through a 27GA needle.**

Electrically Conductive Adhesives with Enhanced Dispense

Semiconductor IC Packaging



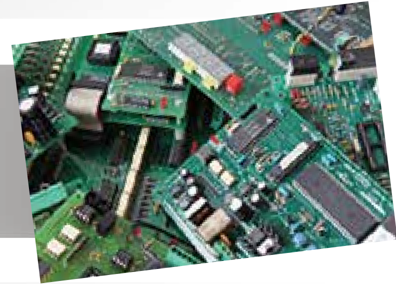
- Die attaching chips to leadframes; compatible with Si and MEMS chips, 260°C lead-free reflow and JEDEC Level 1 packaging requirements
  - Most capable of being snap cured in line, as well as box oven techniques (see datasheets for cure recommendations)



Hybrid Microelectronics

- Die attaching of Quartz Crystal Oscillators (QCO) to Au posts of TO-can style lead frame
- Used with GaAs chips for microwave/radar applications up to 77 GHz
  - EK1000-1D for high powered die such as MMICs and GaN
- SMD attach adhesive which can be cured simultaneously with die attach processes
  - Compatible with Au, Ag, Ag-Pd terminations of capacitors and resistor SMDs

Electronics & PCB Circuit Assembly



- Automotive applications include pressure sensing and accelerometer circuits

Optoelectronic Packaging Applications

- Die attaching LED chips to substrates using single chip packages or arrays
  - Adhesion to Ag, Au and Cu plated leadframes and PCBs
  - EK1000-1D for high power/high brightness devices
- Concentrator Photovoltaic (CPV) solar cell, die attach and Thermal Interface Material (TIM) at the chip, ceramic substrate and heat sink level

Please consult our *Application Experts* to assist in selecting the most suitable adhesive for your specific technical challenge: techserv@epotek.com

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