

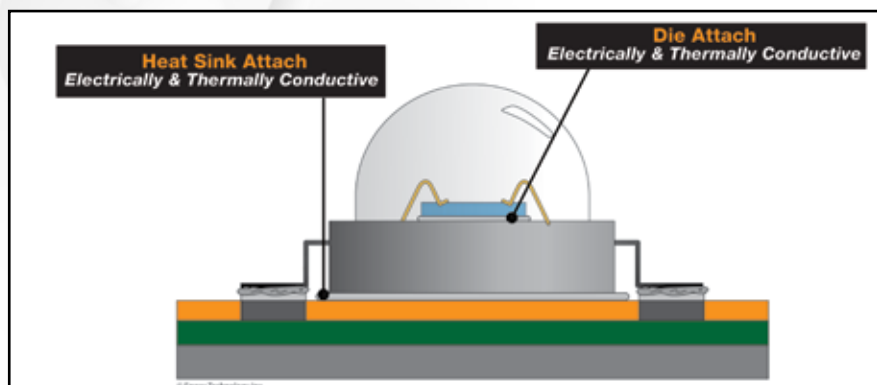
Fast Curing Electrically Conductive Adhesives (ECAs)



Why are Fast Curing ECAs Important?

- ECAs with low temperature cure capability allow use with temperature sensitive substrates such as copper and plastics.
- For manufacturing processes with high volume/high throughput, Fast Curing ECAs are an optimal choice.

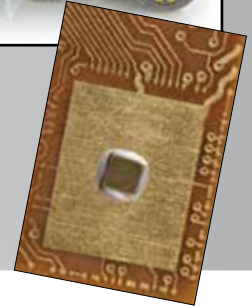
Product	Viscosity* (cPs)	TI	Cure Time	Pot Life	Tg	VR (ohm.cm)	Features
H20E Family							
H20E	2,200-3,200 @ 100rpm	4.6	150°C/5 min 120°C/15 min 150°C/1 hrs 80°C/3 hrs	2.5 days	≥80°C	≤0.0004	Gold standard ECA material.
H20E-FC	1,000-5,000 @ 100rpm	4.6	140°C/35 sec 140°C/10 min 80°C/45 min 120°C/15 min	20 hrs	≥70°C	≤0.0004	Similar rheology and physical properties as H20E, with 40% faster cure times and a 20 hour pot life.
113-105-8	3,277 @ 100rpm	4.4	65°C/90 min 140°C/10 min	14.5 hrs	60°C	<0.0015	Faster / lower temperature curing version of H20E-FC with 14 hour pot life.
113-117-4	18,230 @ 10rpm	6.8	65°C/1 hr	8 hrs	26°C	<0.001	Fastest curing version of H20E with a higher ThK.
H20F Family							
EV2118-2	1,500-3,000 @100rpm	4.4	150°C/10 min 120°C/15 min 100°C/1 hr	3 days	≥40°C	≤0.0005	A version of H20F with significantly higher cohesives strength.
111-8-1	2,818 @100rpm	4.5	140°C/10 min 120°C/15 min 150°C/1 hr	2 days	50°C	≤0.0005	Faster curing version of EV2118-2. Designed for bonding temperature sensitive substrates, such as copper.



Typical Applications Using Fast Curing ECA Adhesives

Die Attach

- Capable of in-line snap cure for high volume/high throughput applications.
- Includes optoelectronics, semiconductors and microelectronics.
- Die attaching LED chips to substrates using single chip packages or arrays.
- Excellent adhesion to Ag, Au and copper plated lead frames and PCBs.
- Die-attaching IR-detector chips onto PCBs or TO-can style headers.
- Compatible with GaAs and GaN chips.
- Flexible products provide stress relief for large die.



SMD

- Can be cured simultaneously with die attach processes.
- Includes capacitors, resistors, power devices and ferrites.
- Compatible with Au, Ag, Ag-Pd terminations for capacitors and resistor SMD.
- ECA for attaching SMD's to membrane switch flex circuits. Compatible with Ag-PTF and carbon graphite PCB pads. A low temperature "solder-free" solution.

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



DISCLAIMER: Data presented is provided only to be used as a guide. Properties listed are typical, average values, based on tests believed to be accurate. It is recommended that users perform a thorough evaluation for any application based on their specific requirements. Epoxy Technology makes no warranties (expressed or implied) and assumes no responsibility in connection with the use or inability to use these products.

Epoxy Technology Inc. • 14 Fortune Drive • Billerica, MA 01821
phone 978-667-3805 fax 978-663-9782 techserv@epotek.com

www.epotek.com

EPO-224-01

EPOXY
* TECHNOLOGY

© Epoxy Technology Inc. 2018