

EPO-TEK® Electrically & Thermally Conductive Selector Guide

EPO-TEK®	NO. OF COMPONENTS	CURE TEMPERATURE (minimal)	VISCOSITY @ 23°C (cPs)	GLASS TRANSITION TEMPERATURE (Tg)	DIE SHEAR STRENGTH @ RT (80 mil X 80 mil)	VOLUME RESISTIVITY (ohm-cm)	THERMAL CONDUCTIVITY (W/m²K)	MAX. OPER. TEMPERATURE CONTINUOUS	TGA DEGRADATION TEMPERATURE	CTE Below Tg/ Above Tg (in/in/°C)	POT LIFE (@ room temp.)	SHELF LIFE (@ room temp. or *@-40°)
E2101	Two	175°C – 15 mins. 150°C – 1 hour	@ 20 rpm 15,000 – 18,000	≥90°C	≥5kg / 1,700psi	≤0.0005	2.50	200°C	455°C	56 x 10 ⁻⁶ / 131 x 10 ⁻⁶	5 days	1 year
E3001-HV	Single	180°C – 2 mins. 150°C – 15 mins.	@ 20 rpm 11,000 – 14,000	≥100°C	≥10kg / 3,400psi	≤0.0005	1.09	200°C	435°C	24 x 10 ⁻⁶ / 77 x 10 ⁻⁶	24 hours	1 year*
E3001-6	Single	150°C – 2 mins. 130°C – 15 mins.	@ 50 rpm 5,500 – 7,500	≥100°C	≥3.5kg / 1,190psi	≤0.0005	1.29	250°C	425°C	50 x 10 ⁻⁶ / 106 x 10 ⁻⁶	8 hours	6 months*
E3001-R2	Single	180°C – 15 mins. 150°C – 1 hour	@ 50 rpm 5,500 – 8,000	≥90°C	≥3kg / 1,020psi	≤0.0005	1.20	260°C	460°C	42 x 10 ⁻⁶ / 272 x 10 ⁻⁶	4 days	1 year*
E3081	Single	200°C – 1 hour 180°C – 2 hours	@ 50 rpm 5,000 – 8,000	≥150°C	≥5kg / 1,700psi	≤0.00009	10.60	250°C	440°C	33 x 10 ⁻⁶ / 65 x 10 ⁻⁶	5 days	6 months
E3082	Single	200°C – 1 min. 180°C – 15 mins.	@ 50 rpm 4,000 – 6,500	≥90°C	≥5kg / 1,700psi	≤0.0001	2.78	200°C	360°C	40 x 10 ⁻⁶ / 174 x 10 ⁻⁶	15 hours	1 year*
E4110	Two	150°C – 15 mins. 80°C – 3 hours	@ 100 rpm 800 – 1,600	≥40°C	≥5kg / 1,700psi	≤0.0005	1.37	150°C	380°C	48 x 10 ⁻⁶ / 150 x 10 ⁻⁶	4 hours	1 year
EE129-4	Two	100°C – 15 mins. RT – 24 hours	@ 100 rpm 2,000 – 4,000	≥45°C	≥5kg / 1,700psi	≤0.0003	1.60	200°C	381°C	30 x 10 ⁻⁶ / 227 x 10 ⁻⁶	3 hours	1 year
EM127	Single	160°C – 30 mins. 150°C – 1 hour	@ 100 rpm 2,500 – 3,300	≥65°C	≥10kg / 3,400psi	≤0.0009	1.20	200°C	380°C	28 x 10 ⁻⁶ / 117 x 10 ⁻⁶	28 days	1 year*
H20E	Two	175°C – 45 sec. 80°C – 3 hours	@ 100 rpm 2,200 – 3,200	≥80°C	≥5kg / 1,700psi	≤0.0004	29.00	200°C	425°C	31 x 10 ⁻⁶ / 158 x 10 ⁻⁶	2.5 days	1 year
H20E-PFC	Two	175°C – 45 sec. 80°C – 3 hours	@ 100 rpm 3,000 – 4,000	≥80°C	≥5kg / 1,700psi	≤0.0004	3.20	200°C	467°C	21 x 10 ⁻⁶ / 94 x 10 ⁻⁶	3 days	1 year
H20E-175	Two	180°C – 1 hour 150°C – 2 hours	@ 100 rpm 2,800 – 3,800	≥85°C	≥10kg / 3,400psi	≤0.0004	2.04	250°C	450°C	20 x 10 ⁻⁶ / 88 x 10 ⁻⁶	3.5 days	1 year
H20S	Two	175°C – 45 sec. 80°C – 90 mins.	@ 100 rpm 1,800 – 2,800	≥80°C	≥5kg / 1,700psi	≤0.0005	3.25	200°C	441°C	31 x 10 ⁻⁶ / 120 x 10 ⁻⁶	4 days	1 year
H31	Single	150°C – 1 hour	@ 5 rpm 15,000 – 25,000	≥110°C	≥5kg / 1,700psi	≤0.0005	1.10	200°C	370°C	48 x 10 ⁻⁶ / 201 x 10 ⁻⁶	28 days	6 months (refrigeration)
H35-175MP	Single	180°C – 1 hour 165°C – 1.5 hours	@ 10 rpm 22,000 – 28,000	≥100°C	≥10kg / 3,400psi	≤0.0005	1.46	200°C	372°C	31 x 10 ⁻⁶ / 97 x 10 ⁻⁶	28 days	1 year*
H37MP	Single	150°C – 1 hour	@ 10 rpm 22,000 – 26,000	≥90°C	≥10kg / 3,400psi	≤0.0005	1.59	200°C	358°C	52 x 10 ⁻⁶ / 148 x 10 ⁻⁶	28 days	1 year*
P1011	Single	Pre-Bake 30 mins @ 80°C + 1 hour @ 150°C	@ 20 rpm 8,000 – 12,000	≥90°C	≥5kg / 1,700psi	≤0.0005	1.30	350°C	450°C	37 x 10 ⁻⁶ / 160 x 10 ⁻⁶	N/A	1 year

Above is representative of Epoxy Technology's diverse selection of electrically & thermally conductive adhesives. **Please see other side for application notes.**



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EPO-TEK® APPLICATIONS	E2101	E3001 -HV	E3001 -6	E3001 -R2	E3081	E3082	E4110	EE129 -4	EM127	H20E	H20E -PFC	H20E -175	H20S	H31	H35- 175MP	H37 MP	P1011
MCM/HYBRID DIE ATTACH	X				X	X				X	X	X	X		X	X	X
SEMICONDUCTOR DIE ATTACH	X	X	X	X		X			X	X		X	X			X	X
MICROWAVE	X	X					X	X	X	X	X	X	X	X	X	X	X
QUARTZ CRYSTAL ATTACH										X		X	X	X			X
POLYMER FLIP CHIP	X									X	X		X				
SOLDER REPLACEMENT	X							X		X	X		X				
HIGH TEMPERATURE	X				X	X									X		X
MIL STD 883 / 5011															X	X	
LED ATTACH	X	X							X	X			X	X			
LCD INTERCONNECT	X						X			X			X				
SUBSTRATE ATTACH							X	X		X		X	X	X	X	X	
NASA APPROVED	X				X			X		X			X		X	X	X
LOW STRESS				X		X	X										
MEDICAL-USP IV										X							
PHOTONICS DEVICES		X	X				X	X	X	X			X	X		X	

DISCLAIMER: Data presented is provided only as a guide in selecting an adhesive. Properties listed are typical, average values, based on tests believed to be accurate. It is recommended the user 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.



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