

Epoxy Technology EPO-TEK® H20-FC Electrically Conductive Epoxy

Category : Polymer , Thermoset , Epoxy , Epoxy, Electrically Conductive

Material Notes:

Product Description: EPO-TEK®H20E-FC is a two-component, electrically conductive, snap curing epoxy for photovoltaic thin film module stringing, semiconductor packaging and PCB circuit assembly.**Advantages & Application Notes:** It is a snap cure version of EPO-TEK® H20E, designed for snap cure at 140°C and

Order this product through the following link:

http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-H20-FC-Electrically-Conductive-Epoxy.php

Physical Properties	Metric	English	Comments
Specific Gravity	2.51 g/cc	2.51 g/cc	Part B
	3.80 g/cc	3.80 g/cc	Part A
Particle Size	<= 45 µm	<= 45 µm	
Viscosity	2361 cP	2361 cP	50 rpm
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	55	55	
Tensile Modulus	6.39 GPa	928 ksi	Storage
Shear Strength	>= 13.8 MPa	>= 2000 psi	Lap
	>= 23.4 MPa	>= 3400 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	56.0 µm/m-°C	31.1 µin/in-°F	Below Tg
	233 µm/m-°C	129 µin/in-°F	Above Tg
Thermal Conductivity	2.63 W/m-K	18.3 BTU-in/hr-ft ² -°F	
Maximum Service Temperature, Air	200 °C	392 °F	Continuous
	300 °C	572 °F	Intermittent
Minimum Service Temperature, Air	-55.0 °C	-67.0 °F	Continuous
	-55.0 °C	-67.0 °F	Intermittent
Glass Transition Temp, Tg	85.0 °C	185 °F	Dynamic Cure 20–200°C /ISO 25 Min; Ramp -10–200°C @ 20°C/Min

Decomposition Temperature Thermal Properties	392 °C Metric	738 °F English	Degradation Temperature Comments
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Electrical Properties	Metric	English	Comments
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Volume Resistivity	<= 0.00040 ohm-cm	<= 0.00040 ohm-cm	
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Processing Properties	Metric	English	Comments
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Cure Time	15.0 min	0.250 hour	Minimum Bond Line
	@Temperature 120 °C	@Temperature 248 °F	

	35.0 min	0.583 hour	Minimum Bond Line
	@Temperature 140 °C	@Temperature 284 °F	

	45.0 min	0.750 hour	Minimum Bond Line
	@Temperature 80.0 °C	@Temperature 176 °F	

Pot Life	1200 min	1200 min	
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Shelf Life	12.0 Month	12.0 Month	
	@Temperature 25.0 °C	@Temperature 77.0 °F	

Descriptive Properties	Value	Comments
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Color	Silver	Part A
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	Silver	Part B
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Consistency	Smooth thixotropic paste	
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Mix Ratio By Weight	1:1	
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Number of Components	Two	
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Thixotropic Index	4.62	
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Weight Loss	0.73%	200°C
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	1.67%	250°C
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	2.37%	300°C
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