

## Epoxy Technology EPO-TEK® U300-2 Two Component Epoxy

Category : Polymer , Thermoset , Epoxy

### Material Notes:

Material Description: A two component epoxy designed for capillary underfill of semiconductor chips and SMDs. Long potlife, high Tg, and optical clarity are a few of its traits. NASA approved low outgassing epoxy suitable for electronic applications such as smart cards, RFIDs, medical implants and wafer level camera optics. Information Provided by Epoxy Technology

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Epoxy-Technology-EPO-TEK-U300-2-Two-Component-Epoxy.php](http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-U300-2-Two-Component-Epoxy.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.10 g/cc	1.10 g/cc	Part A
	1.20 g/cc	1.20 g/cc	Part B
Viscosity	3700 - 6700 cP	3700 - 6700 cP	20 rpm
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	80	80	
Tensile Modulus	1.85 GPa	268 ksi	Storage
Shear Strength	10.81 MPa	1568 psi	Lap
	46.9 MPa	6800 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	55.0 µm/m-°C	30.6 µin/in-°F	Below Tg
	184 µm/m-°C	102 µin/in-°F	Above Tg
Maximum Service Temperature, Air	225 °C	437 °F	Continuous
	325 °C	617 °F	Intermittent
Minimum Service Temperature, Air	-55.0 °C	-67.0 °F	Continuous
	-55.0 °C	-67.0 °F	Intermittent
Glass Transition Temp, Tg	>= 115 °C	>= 239 °F	Dynamic Cure 20–200°C /ISO 25 Min; Ramp 10–200°C @ 20°C/Min
Decomposition Temperature	425 °C	797 °F	Degradation Temperature

Optical Properties	Metric	English	Comments
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Optical Properties	Metric	English	Comments
Refractive Index	1.5745	1.5745	
	@Wavelength 589 nm	@Wavelength 589 nm	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 3.00e+13 ohm-cm	>= 3.00e+13 ohm-cm	
Dielectric Constant	3.04	3.04	
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dissipation Factor	0.011	0.011	
	@Frequency 1000 Hz	@Frequency 1000 Hz	

Chemical Properties	Metric	English	Comments
Ionic Impurities - Na (Sodium)	14 ppm	14 ppm	
Ionic Impurities - K (Potassium)	6.0 ppm	6.0 ppm	
Ionic Impurities - Cl (Chloride)	100 ppm	100 ppm	

Processing Properties	Metric	English	Comments
Cure Time	180 min	3.00 hour	minimum
	90.0 min	1.50 hour	minimum
	@Temperature 120 °C	@Temperature 248 °F	
Pot Life	2880 min	2880 min	
Shelf Life	12.0 Month	12.0 Month	
	@Temperature 25.0 °C	@Temperature 77.0 °F	

Descriptive Properties	Value	Comments
Color	Amber	Part B
	Clear/Colorless	Part A
Consistency	Pourable liquid	
Ionic Impurities NH4	274 ppm	
Number of Components	Two	
Weight Loss	<0.05%	200°C
	<0.05%	250°C

Descriptive Properties	0.15% Value	300°C Comments
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## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China