

Epoxy Technology EPO-TEK® 310M-2 Optically Clear, Flexible Epoxy

Category : Polymer , Thermoset , Epoxy

Material Notes:

Material Description: A two component, optically clear, flexible epoxy adhesive designed for optical applications within semiconductor, fiber optic and medical industries. An alternative to EPO-TEK® 310M Information Provided by Epoxy Technology

Order this product through the following link:

http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-310M-2-Optically-Clear-Flexible-Epoxy.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.01 g/cc	1.01 g/cc	Part B
	1.11 g/cc	1.11 g/cc	Part A
Viscosity	250 - 325 cP	250 - 325 cP	100 rpm
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	65	65	
Tensile Modulus	0.01335 GPa	1.936 ksi	Storage
Shear Strength	4.62 MPa	670 psi	Lap
	11.7 MPa	1700 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	67.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	37.2 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Below Tg
	201 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	112 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Above Tg
Maximum Service Temperature, Air	150 °C	302 °F	Continuous
	250 °C	482 °F	Intermittent
Minimum Service Temperature, Air	-55.0 °C	-67.0 °F	Continuous
	-55.0 °C	-67.0 °F	Intermittent
Glass Transition Temp, Tg	$\leq 30.0\text{ }^\circ\text{C}$	$\leq 86.0\text{ }^\circ\text{F}$	Dynamic Cure 20–200°C /ISO 25 Min; Ramp 10–200°C @ 20°C/Min
Decomposition Temperature	331 °C	628 °F	Degradation Temperature

Optical Properties	Metric	English	Comments
	1.4947	1.4947	

Refractive Index Optical Properties	Metric @ Wavelength 589 nm	English @ Wavelength 589 nm	uncured Comments
Transmission, Visible	>= 98 % @ Wavelength 380 - 1660 nm	>= 98 % @ Wavelength 380 - 1660 nm	Spectral

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.50e+10 ohm-cm	>= 1.50e+10 ohm-cm	
Dielectric Constant	5.23 @Frequency 1000 Hz	5.23 @Frequency 1000 Hz	
Dissipation Factor	0.115 @Frequency 1000 Hz	0.115 @Frequency 1000 Hz	

Processing Properties	Metric	English	Comments
Cure Time	120 min @Temperature 65.0 °C	2.00 hour @Temperature 149 °F	
	1440 min @Temperature 23.0 °C	24.0 hour @Temperature 73.4 °F	
Pot Life	90 min	90 min	
Shelf Life	12.0 Month @Temperature 25.0 °C	12.0 Month @Temperature 77.0 °F	

Descriptive Properties	Value	Comments
Color	Clear/Colorless	Part A
	Clear/Colorless	Part B
Consistency	Pourable liquid	
Mix Ratio By Weight	100:2.2	
Number of Components	Two	
Weight Loss	0.4%	200°C
	0.74%	250°C
	2.18%	300°C

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