EPO-TEK® H20E-MP

Epoxy; Epoxide

Epoxy Technology Inc.

Message:

EPO-TEK® H20E-MP is a two component, 100% solids silver-filled epoxy system designed specifically for chip bonding in microelectronic and optoelectronic applications. It is also used extensively for thermal management applications due to its high thermal conductivity. It has proven itself to be extremely reliable over many years of service and is still the conductive adhesive of choice for new applications. Also available in a single component frozen syringe.

General Information		
Filler / Reinforcement	Silver	
Features	Biocompatible	
	Electrically Conductive	
	Electromagnetic Shielding (EMI)	
	Low to No Outgassing	
	Radio Frequency Shielding (RFI)	
	Thermally Conductive	
Uses	Adhesives	
	Automotive Applications	
	Bonding	
	Electrical/Electronic Applications	
	LCD Applications	
	Medical/Healthcare Applications	
	Printed Circuit Boards	
	Solar Panels	
Agency Ratings	EC 1907/2006 (REACH)	
	EU 2003/11/EC	
	EU 2006/122/EC	
	MIL Std. 883	
	USP Class VI	
RoHS Compliance	RoHS Compliant	
Forms	Paste	
Physical	**Nominal Value**	**Unit**
Ion Type		
Cl-	< 200	ppm
K+	< 50	ppm
Na+	< 50	ppm
NH4+	126	ppm

Particle Size	< 45.0	µm	
Degradation Temperature	425	°C	TGA
Die Shear Strength - >10 kg (23°C)	23.4	MPa	
Operating Temperature			
Continuous	-55 to 200	°C	
Intermittent	-55 to 300	°C	
Storage Modulus (23°C)	5.58	GPa	
Thixotropic Index	4.63		
Weight Loss on Heating			
200°C	0.59	%	
250°C	1.1	%	
300°C	1.7	%	
Thermal	**Nominal Value**	**Unit**	
Glass Transition Temperature [1]	> 80.0	°C	
CLTE - Flow			
-- [2]	3.1E-5	cm/cm/°C	
-- [3]	1.6E-4	cm/cm/°C	
Thermal Conductivity			
-- [4]	2.5	W/m/K	
-- [5]	29	W/m/K	
Thermoset	**Nominal Value**	**Unit**	**Test Method**
Thermoset Components			
Part A	Mix Ratio by Weight: 1.0		
Part B	Mix Ratio by Weight: 1.0		
Shelf Life (23°C)	26	wk	
Uncured Properties	**Nominal Value**	**Unit**	**Test Method**
Color			
-- [6]	Silver		
-- [7]	Silver		
Density			
Part A	2.02	g/cm³	
Part B	3.06	g/cm³	
Viscosity [8] (23°C)	2.2 to 3.2	Pa·s	
Curing Time (150°C)	1.0	hr	
Pot Life	2900	min	
Cured Properties	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore D)	75		
Lap Shear Strength (23°C)	10.2	MPa	
Volume Resistivity (23°C)	< 4.0E-4	ohms·cm	
NOTE			
1.	Dynamic Cure 20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min		

2.	Below Tg
3.	Above Tg
4.	Based on standard method: Laser Flash
5.	Based on Thermal Resistance Data: R = L x K^-1 x A^-1
6.	Part B
7.	Part A
8.	100 rpm

Recommended distributors for this material

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