EPO-TEK® ED1020

Epoxy; Epoxide

Epoxy Technology Inc.

Message:

A single component, silver-filled epoxy designed for low power semiconductor LED die attach applications. Its unique features include excellent adhesion and stress relief through mechanical reliability testing. Other attributes include long pot-life, low viscosity and high thixotropy making it ideal for a wide range of application methods including wafer level stamping and syringe dispensing. Formerly 77-189

General Information			
Filler / Reinforcement	Silver		
Features	Good Adhesion		
	Low Viscosity		
	Thixotropic		
Uses	Adhesives		
	Electrical/Electronic Applications		
	LEDs		
Agency Ratings	EC 1907/2006 (DEACH)		
	EC 1907/2006 (REACH)		
	EU 2003/11/EC		
	EU 2006/122/EC		
RoHS Compliance	RoHS Compliant		
Forms	Paste		
Physical	Nominal Value	Unit	
Ion Type			
CI-	169	ppm	
К+	4	ppm	
Na+	0	ppm	
NH4+	67	ppm	
Particle Size	< 20.0	μm	
Degradation Temperature	333	°C	
Operating Temperature			
Continuous	-55 to 150	°C	
Intermittent	-55 to 250	°C	
Storage Modulus (23°C)	249	MPa	
Thixotropic Index	3.00		
Weight Loss on Heating			
200°C	0.68	%	
250°C	1.2	%	

Glass Transition Temperature 1> 46.0"CCLTE - Flow 2ASE-5cm/cm/"C 31.8E-4cm/cm/"CThemal Conductivity1.9W/m/KThemosetNominal ValueUnitShelf Life (-40°C)52wkColorSilverUnitColorSilvergr/cm ³ ZasC 41.5gr/cm ³ 23°C 59.6pa-'s23°C 59.6pa-'sCuring Time (150°C)1.0hrPot Life40000minCure PropertiesVoluma NatureVoluma Resistivity (23°C)4.0ohms:cm1.Constructive 20-200°C//ISO 251.Sprainic Cure 20-200°C//ISO 251.Showe Tg2.Below Tg2.Below Tg2.Above Tg3.Above Tg4.100 rpm5.10 rpm	300°C	1.7	%	
CLTE - Flow24.5E-5cm/cm/*C31.8E-4cm/cm/*CThemal Conductivity1.9W/m/kThemosetNominal ValueUnitShelf Life (-40*C)52wkColorSilverUnitColorSilverg/cm³2a3°C ⁵ 9.6pars23°C ⁶ 9.6pars23°C ⁶ 9.6pars23°C ⁶ 9.6parsCuring Time (150°C)1.0hrPot-Life4000minCuring Time (150°C)40jonShore Hardness (Shore D)40ohms cmVolume Resistivity (23°C)4.0ohms cmNominal ValueUnitcmNominal ValueJonjonShore Hardness (Shore D)6.0jons cm1.Self Shore D)4.0jons cm1.Self Shore D)9.0jons cm1.Self Shore D)9.0jons cm2.Below Tg	Thermal	Nominal Value	Unit	
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Shore Hardness (Shore D) 40 Volume Resistivity (23°C) < 4.0E-4	Pot Life	40000	min	
Volume Resistivity (23°C)< 4.0E-4ohms·cmNOTE1.Dynamic Cure 20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min2.Below Tg3.Above Tg4.100 rpm5.10 rpm	Cured Properties	Nominal Value	Unit	
NOTE 1. Dynamic Cure 20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min 2. Below Tg 3. Above Tg 4. 100 rpm 5. 10 rpm	Shore Hardness (Shore D)	40		
Dynamic Cure 20-200°C/ISO 25 1. Dynamic Cure 20-200°C @ 20°C/Min 2. Min; Ramp -10-200°C @ 20°C/Min 3. Below Tg 4. 100 rpm 5. 10 rpm	Volume Resistivity (23°C)	< 4.0E-4	ohms·cm	
1. Min; Ramp -10-200°C @ 20°C/Min 2. Below Tg 3. Above Tg 4. 100 rpm 5. 10 rpm	NOTE			
3. Above Tg 4. 100 rpm 5. 10 rpm	1.			
4. 100 rpm 5. 10 rpm	2.	Below Tg		
5. 10 rpm	3.	Above Tg		
	4.	100 rpm		
6. 1 rpm	5.	10 rpm		
	6.	1 rpm		

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