EPO-TEK® EK2000

Epoxy; Epoxide

Epoxy Technology Inc.

Message:

A two component, silver-filled adhesive that exhibits exceptional thermal and electrical conductivity along with a shiny silver appearance making it ideal for the demanding requirements of high power LED die attach applications. Other benefits include low viscosity and high thixotropy making it suitable for a wide range of application techniques. It is a two component version of EPO-TEK® EK1000.

General Information	
Filler / Reinforcement	Silver
Features	Electrically Conductive Low Viscosity Thermally Conductive Thixotropic
Uses	Adhesives Electrical/Electronic Applications LEDs
Agency Ratings	EC 1907/2006 (REACH) EU 2003/11/EC EU 2006/122/EC
RoHS Compliance	RoHS Compliant
Forms	Paste

Physical	Nominal Value	Unit
Ion Type		
Cl-	< 10	ppm
K+	0	ppm
Na+	2	ppm
NH4+	6	ppm
Particle Size	< 45.0	µm
Dry Time	< 1.0	day
Degradation Temperature	357	°C
Die Shear Strength		
>10 kg : 23°C [1]	23.4	MPa
>5 kg : 23°C [2]	11.7	MPa
Operating Temperature		
Continuous	-55 to 200	°C
Intermittent	-55 to 300	°C
Storage Modulus	1.89	GPa

Thixotropic Index	3.60	
Weight Loss on Heating		
200°C	0.19	%
250°C	0.94	%
300°C	1.7	%
Thermal	**Nominal Value**	**Unit**
Glass Transition Temperature	104	°C
CLTE - Flow		
-- [3]	3.8E-5	cm/cm/°C
-- [4]	9.4E-5	cm/cm/°C
Thermal Conductivity		
-- [5]	13	W/m/K
-- [6]	26	W/m/K
Thermoset	**Nominal Value**	**Unit**
Thermoset Components		
Part A	Mix Ratio by Weight: 1.0	
Part B	Mix Ratio by Weight: 1.0	
Shelf Life [7]	52	wk
Post Cure Time (200°C)	1.0	hr
Uncured Properties	**Nominal Value**	**Unit**
Color		
-- [8]	Silver	
-- [9]	Silver	
Density		
Part A	3.81	g/cm³
Part B	3.87	g/cm³
Viscosity [10] (23°C)	1.7	Pa·s
Curing Time (150°C)	1.0	hr
Pot Life	20000	min
Cured Properties	**Nominal Value**	**Unit**
Shore Hardness (Shore D)	66	
Lap Shear Strength (23°C)	6.96	MPa
Volume Resistivity	< 9.0E-5	ohms·cm
NOTE		
1.	Initial	
2.	After 1000 hrs 85°C/85%RH	
3.	Below Tg	
4.	Above Tg	
5.	150°C/1 Hour Cure	
6.	150°C/1 Hour+200°C/1 Hour Cure	
7.	Refrigerated	
8.	Part B	

9.	Part A
10.	100 rpm

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China