

EPO-TEK® TV1003

Thermoset Polyimide

Epoxy Technology Inc.

Message:

A single component, screen printable polyimide adhesive designed for semiconductor wafer passivation applications. It is a high temperature chemistry capable of resisting >400°C seen in back-end wafer fabrication processes. Coating thicknesses of 10-90 um may be achieved. Ultra fine print definition, high Tg, low outgassing, and ionic cleanliness are a few of its traits. It is an increased dielectric strength of EPO-TEK® TV1002. Formerly 78-119

General Information		
Features	High Heat Resistance	
	Low to No Outgassing	
Uses	Adhesives	
	Electrical/Electronic Applications	
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-	3	ppm
K+	1	ppm
Na+	15	ppm
NH4+	96	ppm
Particle Size	< 10.0	µm
Degradation Temperature	541	°C
Drying Time	672.0	hr
Operating Temperature		
Continuous	-55 to 300	°C
Intermittent	-55 to 400	°C
Storage Modulus (23°C)	1.96	GPa
Thixotropic Index	1.40	
Weight Loss on Heating		
200°C	< 0.050	%
250°C	< 0.050	%
300°C	< 0.050	%
Thermal	Nominal Value	Unit

Glass Transition Temperature ¹	> 200	°C
CLTE - Flow		
-- ²	2.8E-5	cm/cm/°C
-- ³	3.6E-5	cm/cm/°C
Thermal Conductivity	0.77	W/m/K
Thermoset	Nominal Value	Unit
Shelf Life (23°C)	52	wk
Uncured Properties	Nominal Value	Unit
Color	Ivory	
Density	1.24	g/cm ³
Viscosity ⁴ (23°C)	330 to 530	Pa·s
Curing Time ⁵	2.0	hr
Cured Properties	Nominal Value	Unit
Shore Hardness (Shore D)	60	
NOTE		

1.	Cure 150°C/1 hour + 275°C/1 hours; Ramp 20°C/min to 350°C
2.	Below Tg
3.	Above Tg
4.	0.5 rpm
5.	150°C/1 Hour + 275°C/1 Hour

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