

INSUL-PLATE™ X-28057-2HT

Epoxy; Epoxide

Sumitomo Bakelite North America, Inc.

Message:

Vyncolit INSUL-PLATE™ Hole-Fill material delivers true reliability and superior performance. This material, in powder form, is specifically suited for Hole-Fill use in glass epoxy, multi-layer and polyimide metal core circuit boards. The material is designed to meet or exceed the higher process and post-cure temperatures required for polyimide prepregs. Vyncolit Hole-Fill powder offers excellent adhesion to the metal core plates while maintaining the required mechanical and electrical properties. In addition, INSUL-PLATE material readily accepts plating with excellent adhesion. Vyncolit monitors the material on a lot-to-lot basis to assure a consistent product and to provide the high reliability required for metal core and multi-layer board applications.

General Information			
Features	Electrically Insulating		
	Good Adhesion		
	Good Chemical Resistance		
	Low Shrinkage		
	Machinable		
	Platable		
Uses	Printed Circuit Boards		
Appearance	Black		
Forms	Powder		
Processing Method	Compression Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.99	g/cm ³	ASTM D792
Apparent Density	0.80	g/cm ³	ASTM D1895
Molding Shrinkage - Flow	0.60	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.060	%	ASTM D570
Water Absorption - 48 hr (50°C)	0.20	%	ASTM D570
Bulk Factor	3.00 to 4.00		ASTM D954
Insulation Resistance	1.0E+15	ohms · cm	ASTM D257
Mold Temperature (other) - Compression	143 to 177	°C	
Molding Pressure - Compression	1.38 to 13.8	MPa	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	51.0	MPa	ASTM D638
Flexural Modulus	13800	MPa	ASTM D790
Flexural Strength	96.0	MPa	ASTM D790
Compressive Strength	172	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	18	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow			ASTM E831

40 to 125°C ¹	2.5E-5	cm/cm/°C	
40 to 125°C ²	2.9E-5	cm/cm/°C	
40 to 190°C ³	2.8E-5	cm/cm/°C	
Thermal Conductivity	0.63	W/m/K	ASTM C518
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	14	kV/mm	ASTM D149
Dielectric Constant ⁴ (1 MHz)	5.25		ASTM D2520
Dissipation Factor ⁵ (1 MHz)	8.0E-3		ASTM D150
Arc Resistance	180	sec	ASTM D495
Thermoset	Nominal Value	Unit	
Shelf Life (4°C)	> 26	wk	
NOTE			
1.	Post Cured		
2.	As Molded		
3.	Post Cured		
4.	Dry		
5.	Dry		

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Recommended distributors for this material

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