

3M Scotchcast™ 265 Electrical Epoxy Powder Resin

Category : Polymer , Thermoset , Epoxy , Epoxy Cure Resin

Material Notes:

3M Scotchcast Electrical Resin 265 is a new solution to an old problem. Historically, manufactures of coils, stators and armatures have used liquid-based varnishes or resins to coat and impregnate the copper windings to obtain better heat transfer, mechanical strength and environmental protection. However, these liquids – originally natural resins, now mostly synthetic – have presented a number of problems to the user during the manufacturing process. Scotchcast 265 solves many of these problems: Does not require any mixing or catalyzation Does not contain any solvents Is non-flammable Has a long shelf life Requires storage at ordinary air-conditioned temperature Odor-free Spills are easy to clean Can be applied to trickle, spray or dip processes. Scotchcast 265 is a powder. It is simply applied to the heated winding where it melts, flows into the wire interstices and cures. Low melt viscosity and minimum build make this powder ideal for a variety of coating and bonding applications. Information provided by 3M

Order this product through the following link:

http://www.lookpolymers.com/polymer_3M-Scotchcast-265-Electrical-Epoxy-Powder-Resin.php

Physical Properties	Metric	English	Comments
Density	1.16 g/cc	0.0419 lb/in ³	cured; ASTM D794

Mechanical Properties	Metric	English	Comments
Impact Test	18.1 J	13.3 ft-lb	12-15 mil coating 1/8" sandblasted steel panel Gardner 5/8: Radius Impact Tester
Abrasion	0.20	0.20	[g] Removed from 12-15 mil coating; ASMT D4060

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.180 W/m-K	1.25 BTU-in/hr-ft ² -°F	ASTM E1530

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+7 ohm-cm	1.00e+7 ohm-cm	ASTM D257
	@Temperature 175 °C	@Temperature 347 °F	
	1.00e+10 ohm-cm	1.00e+10 ohm-cm	ASTM D257
	@Temperature 130 °C	@Temperature 266 °F	
	1.00e+13 ohm-cm	1.00e+13 ohm-cm	ASTM D257
	@Temperature 100 °C	@Temperature 212 °F	
	1.00e+14 ohm-cm	1.00e+14 ohm-cm	ASTM D257
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	4.9	4.9	

Electrical Properties	Metric	English	Comments
	@Frequency 10000 Hz, Temperature 20.0 °C	@Frequency 10000 Hz, Temperature 68.0 °F	
	4.9	4.9	
	@Frequency 100000 Hz, Temperature 20.0 °C	@Frequency 100000 Hz, Temperature 68.0 °F	MIL-I-16923E
	5.0	5.0	
	@Frequency 100000 Hz, Temperature 90.0 °C	@Frequency 100000 Hz, Temperature 194 °F	MIL-I-16923E
	5.0	5.0	
	@Frequency 1000 Hz, Temperature 20.0 °C	@Frequency 1000 Hz, Temperature 68.0 °F	MIL-I-16923E
	5.1	5.1	
	@Frequency 10000 Hz, Temperature 70.0 °C	@Frequency 10000 Hz, Temperature 158 °F	MIL-I-16923E
	5.1	5.1	
	@Frequency 100 Hz, Temperature 20.0 °C	@Frequency 100 Hz, Temperature 68.0 °F	MIL-I-16923E
	5.2	5.2	
	@Frequency 1000 Hz, Temperature 70.0 °C	@Frequency 1000 Hz, Temperature 158 °F	MIL-I-16923E
	5.5	5.5	
	@Frequency 100 Hz, Temperature 70.0 °C	@Frequency 100 Hz, Temperature 158 °F	MIL-I-16923E
	6.0	6.0	
	@Frequency 100000 Hz, Temperature 120 °C	@Frequency 100000 Hz, Temperature 248 °F	MIL-I-16923E
	6.2	6.2	
	@Frequency 10000 Hz, Temperature 120 °C	@Frequency 10000 Hz, Temperature 248 °F	MIL-I-16923E
	6.4	6.4	
	@Frequency 1000 Hz, Temperature 120 °C	@Frequency 1000 Hz, Temperature 248 °F	MIL-I-16923E
	8.0	8.0	
	@Frequency 100 Hz, Temperature 115 °C	@Frequency 100 Hz, Temperature 239 °F	MIL-I-16923E
Dielectric Strength	51.2 kV/mm	1300 kV/in	12 to 15 mil coating; ASTM D149

Electrical Properties	Metric	English	Comments
Dissipation Factor	@Frequency 100 Hz, Temperature 20.0 °C	@Frequency 100 Hz, Temperature 68.0 °F	

Processing Properties	Metric	English	Comments
Cure Time	2.00 min	0.0333 hour	
	@Temperature 232 °C	@Temperature 450 °F	
	5.00 min	0.0833 hour	
	@Temperature 204 °C	@Temperature 399 °F	
	20.0 min	0.333 hour	
	@Temperature 177 °C	@Temperature 351 °F	
	60.0 min	1.00 hour	
	@Temperature 149 °C	@Temperature 300 °F	
Gel Time	1.00 min	1.00 min	hot plate
	@Temperature 193 °C	@Temperature 379 °F	
Shelf Life	24.0 Month	24.0 Month	
	@Temperature <=27.0 °C	@Temperature <=80.6 °F	

Descriptive Properties	Value	Comments
Appearance	Clear/White depending on thickness	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China