

## 3M Scotchcast™ 2104 Electrical Insulating Resin

Category : Other Engineering Material

### Material Notes:

Scotchcast 2104 Electrical Insulating Resin is a hard, two-part, polyurethane resin encapsulant designed especially for permanent splice protection. 2104 is formulated for virtually every electrical application requiring a hard, non-reenterable resin with good handling and performance characteristics. 2104 is also used as the insulating material for cable splices operating at 1000 volts or less and is rated for continuous use at 90°C with an overload rating 130°C. It may be stocked to cover all hard resin needs, ending the need for multiple encapsulant inventories. This resin is a two-part polyurethane, and is formulated with excellent wetting properties and low viscosity. 2104 flows well, even at low temperatures, filling the closure completely and eliminating voids. Cure time is fast; approximately one hour at 22°C and 20 hours at -4°C. Information provided by 3M

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_3M-Scotchcast-2104-Electrical-Insulating-Resin.php](http://www.lookpolymers.com/polymer_3M-Scotchcast-2104-Electrical-Insulating-Resin.php)

Physical Properties	Metric	English	Comments
Density	1.03 g/cc	0.0372 lb/in <sup>3</sup>	
Moisture Absorption	0.280 %	0.280 %	7 days at RT

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	70	70	ASTM D2240
Tensile Strength at Break	3.06 MPa	444 psi	ASTM D412
Elongation at Break	98 %	98 %	ASTM D412

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	130 °C	266 °F	
Minimum Service Temperature, Air	90.0 °C	194 °F	
Glass Transition Temp, Tg	-70.0 °C	-94.0 °F	

Electrical Properties	Metric	English	Comments
Dielectric Constant	3.8	3.8	ASTM D150
	@Frequency 100 Hz, Temperature 23.0 °C	@Frequency 100 Hz, Temperature 73.4 °F	
Dielectric Strength	20.6 kV/mm	524 kV/in	ASTM D149

Processing Properties	Metric	English	Comments
	60.0 min	1.00 hour	

<b>Cure Time</b> Processing Properties	<b>Metric</b> @ Temperature 21.0 °C	<b>English</b> @ Temperature 69.8 °F	<b>Comments</b>
	1200 min	20.0 hour	
	@Temperature -4.00 °C	@Temperature 24.8 °F	
Gel Time	18.0 min	18.0 min	

<b>Descriptive Properties</b>	<b>Value</b>	<b>Comments</b>
Appearance	Green	

## Contact Songhan Plastic Technology Co.,Ltd.

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