

## Sumitomo Bakelite North America RX® 647 Fiberglass Reinforced Phenolic

Category : Polymer , Thermoset , Filled/Reinforced Thermoset , Phenolic , Phenolic, Resole, Glass Fiber Filled

### Material Notes:

RX® 643 is a fiberglass reinforced, ammonia-free, phenolic resole compound, with good dimensional stability and good strength at elevated temperatures. Meets ASTM D-5948 Type GPI-10. RX® 647 is a fiberglass reinforced, ammonia-free, phenolic resole compound, with good dimensional stability and good strength at elevated temperatures. Meets ASTM D-5948 Type GPI-5. Information provided by Sumitomo Bakelite North America, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Sumitomo-Bakelite-North-America-RX-647-Fiberglass-Reinforced-Phenolic.php](http://www.lookpolymers.com/polymer_Sumitomo-Bakelite-North-America-RX-647-Fiberglass-Reinforced-Phenolic.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.800 g/cc	0.0289 lb/in <sup>3</sup>	ASTM D1895
Density	1.90 g/cc	0.0686 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.040 %	0.040 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	
	0.20 %	0.20 %	ASTM D570
	@Time 173000 sec	@Time 48.0 hour	
Linear Mold Shrinkage	0.0020 cm/cm	0.0020 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell E	85	85	ASTM D785
Tensile Strength at Break	72.0 MPa	10400 psi	ASTM D638
Flexural Strength	152 MPa	22000 psi	ASTM D790
Flexural Modulus	15.9 GPa	2310 ksi	ASTM D790
Compressive Strength	241 MPa	35000 psi	ASTM D695
Izod Impact, Notched	0.380 J/cm	0.712 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	14.0 µm/m-°C	7.78 µin/in-°F	ASTM E831
Thermal Conductivity	0.790 W/m-K	5.48 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C518
Deflection Temperature at 1.8 MPa (264 psi)	276 °C	529 °F	As Molded; ASTM D648A
	>= 282 °C	>= 540 °F	Post Baked; ASTM D648A

Electrical Properties	Metric	English	Comments
Dielectric Strength	11.8 kV/mm	300 kV/in	step-by-step, wet; ASTM D149
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
	13.8 kV/mm	351 kV/in	short time, wet; ASTM D149
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Arc Resistance	180 sec	180 sec	ASTM D495

Descriptive Properties	Value	Comments
Color	Black	
Form	Granular	
Molding Method	Compression	
	Injection	
	Transfer	

## Contact Songhan Plastic Technology Co.,Ltd.

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