

## Phenolic

## Sumitomo Bakelite North America, Inc.

#### Message:

RX® 640 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.

General Information					
UL YellowCard	E123472-221460				
Filler / Reinforcement	Glass Fiber				
Features	Good Abrasion Resistance				
	Good Dimensional Stability				
	High Temperature Strength				
Agency Ratings	ASTM D 5948, Type GPI-5				
Appearance	Black				
Forms	Granules				
Processing Method	Compression Molding				
	Injection Molding				
	Resin Transfer Molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.76	g/cm³	ASTM D792		
Apparent Density	0.80	g/cm³	ASTM D1895		
Molding Shrinkage - Flow (Compression					
Molded)	0.20	%	ASTM D955		
Water Absorption (24 hr)	0.060	%	ASTM D570		
Water Absorption - 48 hrs	0.22	%	ASTM D570		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (E-Scale, Compression					
Molded)	90		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Strength (Break, Compression Molded)	86.0	MPa	ASTM D638		
Flexural Modulus (Compression Molded)	14500	MPa	ASTM D790		
Flexural Strength (Compression Molded)	186	MPa	ASTM D790		
Compressive Strength	248	MPa	ASTM D695		

186	MPa	ASTM D790
248	MPa	ASTM D695
Nominal Value	Unit	Test Method
40	J/m	ASTM D256A
Nominal Value	Unit	Test Method
		ASTM D648
	248 Nominal Value 40	248 MPa   Nominal Value Unit   40 J/m

1.8 MPa, Unannealed, Compression			
Molded	280	°C	
1.8 MPa, Annealed, Compression			
Molded	> 282	°C	
CLTE - Flow	1.4E-5	cm/cm/°C	ASTM E831
Thermal Conductivity	0.55	W/m/K	ASTM C518
RTI Elec	150	°C	UL 746
RTI Imp	150	°C	UL 746
RTI Str	150	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength <sup>1</sup>			ASTM D149
<sup>2</sup>	14	kV/mm	
<sup>3</sup>	12	kV/mm	
Arc Resistance	160	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	V-0		
3.20 mm	V-0		
NOTE			
1.	Wet, 60 Hz		
2.	Method A (Short-Time)		

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## Recommended distributors for this material

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