

# Sumikon® PM-9640 (Injection)

Phenolic

Sumitomo Bakelite North America, Inc.

## Message:

Durez "SUMIKON" PM-9640 black Phenolic is a two stage glass fiber and mineral filled special purpose molding compound. It is especially designed for applications requiring high strength and dimensional stability with excellent heat resistance. PM-9640 is widely used in automotive applications. Typical applications include motor housings, brush holders, and heat insulators.

General Information			
Filler / Reinforcement	Glass Fiber Mineral		
Features	Good Dimensional Stability High Heat Resistance High Strength		
Uses	Automotive Applications Housings		
Appearance	Black		
Forms	Granules		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.78	g/cm <sup>3</sup>	ASTM D792
Apparent Density	0.80	g/cm <sup>3</sup>	ASTM D1895
Molding Shrinkage - Flow	0.30	%	ASTM D955
Water Absorption (Saturation)	0.050	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	18.6	MPa	ASTM D638
Tensile Strength	138	MPa	ASTM D638
Flexural Strength	227	MPa	ASTM D790
Compressive Strength	276	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	40	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	204	°C	ASTM D648
CLTE - Flow (23 to 60°C)	2.4E-5	cm/cm/°C	ASTM E831
RTI Elec (3.00 mm)	150	°C	UL 746
Electrical	Nominal Value	Unit	Test Method

Volume Resistivity	1.0E+12	ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
-- <sup>1</sup>	18	kV/mm	
-- <sup>2</sup>	16	kV/mm	
Dielectric Constant (1 MHz)	4.30		ASTM D150
Dissipation Factor (1 MHz)	0.020		ASTM D150
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating			UL 94
1.50 mm	V-0		
3.00 mm	V-0		
6.00 mm	V-0		
<b>Thermoset</b>	<b>Nominal Value</b>	<b>Unit</b>	
Shelf Life	52	wk	
<b>NOTE</b>			
1.	Method A (Short-Time)		
2.	Method B (Step-by-Step)		

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