

RX® 431

Phenolic

Sumitomo Bakelite North America, Inc.

Message:

RX® 431 is a cellulose fiber reinforced phenolic novolac molding compound. This material is recommended for large parts requiring moderate toughness. It is designed to meet the requirements of ASTM D-5948-96, Type CFI-10.

General Information	
Filler / Reinforcement	Cellulose
Features	Good Toughness
Agency Ratings	ASTM D 5948, Type CFI-10
Appearance	Black
Forms	Pellets
Processing Method	Compression Molding
	Injection Molding
	Resin Transfer Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.43	g/cm ³	ASTM D792
Apparent Density	0.40	g/cm ³	ASTM D1895
Molding Shrinkage - Flow	0.20	%	ASTM D955
Water Absorption (24 hr)	0.60	%	ASTM D570
Water Absorption - 48 hr	1.9	%	

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (E-Scale)	75		ASTM D785

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	41.0	MPa	ASTM D638
Flexural Modulus	11000	MPa	ASTM D790
Flexural Strength	75.0	MPa	ASTM D790
Compressive Strength	186	MPa	ASTM D695

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	58	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	180	°C	ASTM D648
CLTE			ASTM E831
Flow	2.7E-5	cm/cm/°C	
Transverse	6.9E-5	cm/cm/°C	
Thermal Conductivity	0.58	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 ¹			ASTM D149
-- ²	1.6	kV/mm	
-- ³	1.4	kV/mm	
Arc Resistance	60.0	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	HB		
3.20 mm	HB		
NOTE			
1.	60 Hz, Wet		
2.	Method A (Short-Time)		
3.	Method B (Step-by-Step)		

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Recommended distributors for this material

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