

Durez® 153 (Compression)

Phenolic

Sumitomo Bakelite North America, Inc.

Message:

Durez 153 Black Phenolic is a two-stage, heat resistant/electrical molding material. It exhibits good molded appearance and shock resistance for use on a wide variety of electrical and appliance applications.

General Information	
Features	Earthquake resistance
	Heat resistance, medium
	Good appearance
Uses	Electrical/Electronic Applications
	Electrical appliances
Appearance	Black
Forms	Particles
Processing Method	Resin transfer molding
	Compression molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.53	g/cm ³	ASTM D792
Apparent Density	0.60	g/cm ³	ASTM D1895
Molding Shrinkage - Flow	0.60	%	ASTM D6289
Water Absorption	0.40	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10300	MPa	ASTM D638
Tensile Strength	55.0	MPa	ASTM D638
Flexural Strength	76.0	MPa	ASTM D790
Compressive Strength	179	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	20	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	182	°C	ASTM D648
RTI Elec (3.00 mm)	155	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+12	ohms · cm	ASTM D257
Dielectric Strength			ASTM D149
-- ¹	15	kV/mm	ASTM D149
-- ²	12	kV/mm	ASTM D149

Dielectric Constant (1 MHz)	5.00		ASTM D2520
Dissipation Factor (1 MHz)	0.040		ASTM D150
Comparative Tracking Index	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.00 mm	V-1		UL 94
1.50 mm	V-0		UL 94
3.00 mm	V-0		UL 94
Thermoset	Nominal Value	Unit	
Shelf Life	52	wk	
Additional Information			
Test Specimens Molded at 340-350°F Typical transfer-molded shrinkage is 0.009 in/in			
NOTE			
1.	Method A (short time)		
2.	Method B (step by step)		

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