Durez® 32633 (Injection)

Phenolic

Sumitomo Bakelite North America, Inc.

Message:

Durez 32633 Black Phenolic is a two-stage, glass filled, special purpose molding compound. It is designed for applications requiring high physical strengths, dimensional stability, and heat resistance. Typical applications include small motor and gear housings, brush holders, commutators, and under hood automotive applications.

General Information	
Filler / Reinforcement	Glass fiber reinforced material
Features	Good dimensional stability High strength Heat resistance, high
Uses	Parts under the hood of a car Shell
Appearance	Black
Forms	Particles
Processing Method	Resin transfer molding Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.78	g/cm³	ASTM D792
Apparent Density	0.80	g/cm³	ASTM D1895
Molding Shrinkage - Flow	0.30	%	ASTM D6289
Water Absorption	0.050	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	18600	MPa	ASTM D638
Tensile Strength	138	MPa	ASTM D638
Flexural Modulus (23°C)	15200	MPa	
Flexural Strength	227	MPa	ASTM D790
Compressive Modulus [1]	10500	MPa	
Compressive Strength	276	MPa	ASTM D695
Shear Strength	47.4	MPa	
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
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
-- [2]	18	kV/mm	ASTM D149
-- [3]	16	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.30		ASTM D2520
Dissipation Factor (1 MHz)	0.020		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.50 mm	V-0		UL 94
3.00 mm	V-0		UL 94
6.50 mm	V-0		UL 94
Thermoset	**Nominal Value**	**Unit**	
Shelf Life	52	wk	
Additional Information			
Test Specimens Molded at 340-350°FTypical transfer-molded shrinkage is 0.003 in/in			
NOTE			
1.	250°F		
2.	Method A (short time)		
3.	Method B (step by step)		

Recommended distributors for this material

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