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Durez 32245 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. Typical applications include heavy duty switch gear, connectors, and commutators.

### Plasticities available for compression, transfer, and injection molding.

Form of Material Granular

Feeding & Preforming Fair

Storage Life One Year

PHENOLIC

Typical Properties		Compression		Injection Grade	
		International Units	English Units	International Units	English Units
Physical	Specific Gravity (D792)	1.80	1.80	1.80	1.80
	Apparent Density (D1895)	0.85 g/cc	0.85 g/cc	0.85 g/cc	0.85 g/cc
	Molding Shrinkage* (D6289)	0.0025 m/m	0.0025 in/in	0.0030 m/m	0.0030 in/in
	Water Absorption (D570)	0.05 %	0.05 %	0.05 %	0.05 %
Mechanical	Tensile Strength (D638)	69 Mpa	10,000 psi	86 Mpa	12,500 psi
	Flexural Strength (D790)	103 Mpa	15,000 psi	138 Mpa	20,000 psi
	Compressive Strength (D695)	241 Mpa	35,000 psi	241 Mpa	35,000 psi
	Tensile Modulus (D638)	17.2 Gpa	2.5 x10 <sup>6</sup> psi	17.2 Gpa	2.5 x10 <sup>6</sup> psi
	Izod Impact (D256)	37.4 J/m	0.70 ft lb/in	26.7 J/m	0.50 ft lb/in
Thermal	Deflection Temperature (D648)	204 °C	400 °F	204 °C	400 °F
	UL Flammability (UL-94) @	1.5 mm	V - 0	1.5 mm	V - 0
	For complete UL Listing for this material refer to the UL web Site www.ul.com	3.0 mm	V - 0	3.0 mm	V - 0
	UL Temperature Index (Elect) @	6.0 mm	V - 0	6.0 mm	V - 0
Electrical	Dielectric Strength (D149)				
	Short Time	17.7 MV/m	450 V/mil	17.7 MV/m	450 V/mil
	Step by Step	13.8 MV/m	350 V/mil	13.8 MV/m	350 V/mil
	Dissipation Factor (D150)1 MHZ	.02	.02	0.02	0.02
	Dielectric Constant (D150)1 MHZ	4.9	4.9	4.9	4.9
	Volume Resistivity(ohms)(D257)	1.0 x10 <sup>10</sup> m	1.0 x10 <sup>12</sup> cm	1.0 x10 <sup>10</sup> m	1.0 x10 <sup>12</sup> cm

Properties determined with test specimens molded at 340-350°F \*Typical transfer-molded shrinkage is in/in or m/m

### Other Properties

Post Bake Properties - 8 Hours @ 350°F

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