



Date Issued Jan 24, 2008

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.

Plasticities available for compression, transfer, and injection molding.

Form of Material Granular

Feeding & Preforming Good

Storage Life One Year

PHENOLIC

Typical Properties		Compression		Injection Grade	
		International Units	English Units	International Units	English Units
Physical	Specific Gravity (D792)	1.53	1.53	1.50	1.50
	Apparent Density (D1895)	0.60 g/cc	0.60 g/cc	0.60 g/cc	0.60 g/cc
	Molding Shrinkage* (D6289)	0.006 m/m	0.006 in/in	0.0110 m/m	0.0110 in/in
	Water Absorption (D570)	0.40 %	0.40 %	0.40 %	0.40 %
Mechanical	Tensile Strength (D638)	55 Mpa	8,000 psi	62 Mpa	9,000 psi
	Flexural Strength (D790)	76 Mpa	11,000 psi	83 Mpa	12,000 psi
	Compressive Strength (D695)	179 Mpa	26,000 psi	186 Mpa	27,000 psi
	Tensile Modulus (D638)	10.3 Gpa	1.5 x10 ⁶ psi	11.0 Gpa	1.6 x10 ⁶ psi
	Izod Impact (D256)	19.8 J/m	0.37 ft lb/in	15.5 J/m	0.29 ft lb/in
Thermal	Deflection Temperature (D648)	182 °C	360 °F	177 °C	350 °F
	UL Flammability (UL-94) @	1.0 mm	V - 1	1.0 mm	V - 1
	For complete UL Listing for this material refer to the UL web Site www.ul.com	1.5 mm	V - 0	1.5 mm	V - 0
	UL Temperature Index (Elect) @	3.0 mm	V - 0	3.0 mm	V - 0
Electrical	Dielectric Strength (D149)				
	Short Time	14.7 MV/m	375 V/mil	13.8 MV/m	350 V/mil
	Step by Step	11.8 MV/m	300 V/mil	10.8 MV/m	275 V/mil
	Dissipation Factor (D150)1 MHZ	.04	.04	.05	.05
	Dielectric Constant (D150)1 MHZ	5.0	5.0	5.1	5.1
	Volume Resistivity(ohms)(D257)	1.0 x10 ¹⁰ m	1.0 x10 ¹² cm	1.0 x10 ¹⁰ m	1.0 x10 ¹² cm

Properties determined with test specimens molded at 340-350°F *Typical transfer-molded shrinkage is 0.009 in/in or m/m

Other Properties

IEC Tracking Index (CTI): 225V

IMPORTANT! The information presented herein, while not guaranteed, was prepared by technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, expressed or implied is made regarding performance stability or otherwise. This information is not intended to be all inclusive as the manner and conditions of use, handling, storage, and other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any Federal, State or local laws.