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MATERIALS ENGINEERING LABORATORY DATA REPORT

Plenco 00755

Melamine-Phenolic compression molded

Plenco 00755 is a melamine-phenolic copolymer molding compound offering excellent electrical and flame resistant properties. UL recognized under component file E40654. 00755 is available only in brown. 00755 was qualified under military specification MIL-M-14 (superseded by ASTM D-5948) TYPE CMG and batches can, if requested and paid for, be tested for certification to the standard.

PROPERTY	metric		english		ASTM Test Method
Form	Granular				
Apparent Density	0.58	g/cm³	36.2	lb/ft³	D1895
Specific Gravity	1.60				D792
Mold Shrinkage*	0.0042	m/m	0.0042	in/in	D6289
Post Shrinkage 72hr 120ºC	0.89	%			D6289
Izod Impact Notched	20.1	J/m	0.38	ft·lb/in	D256
Charpy Impact Notched	22.1	J/m	0.41	ft·lb/in	D256
Drop Ball Impact	148	J/m	2.8	ft·lb/in	Plenco
Tensile Strength	56	MPa	8,084	psi	D638
Tensile Modulus	10,039	MPa	1,456,000	psi	D638
Tensile Elongation	0.6	%			D638
Flexural Strength	89.5	MPa	12,980	psi	D790
Flexural Modulus	8,856	MPa	1,285,000	psi	D790
Compressive Strength	165	MPa	23,926	psi	D695
Heat Resistance	152	°C	305	ºF	D794
Deflection Temperature 1.82MPa	184	°C	363	ºF	D648
Water Absorption	0.36	%			D570
Rockwell Hardness	71	E scale			D785
Dielectric Strength short time	12.0	kV/mm	305	V/mil	D149
Dissipation Factor, 1MHz	0.054				D150
Permittivity, 1MHz	6.5				D150
Volume Resistivity	1.8E+13	ohm·cm	7.1E+12	ohm·in	D257
ASTM Arc Resistance	186	sec			D495
Comparative Tracking Index	423	V			D3638
UL Flammability	V-0 @1.5mm				UL 94
Oxygen Index	32.6	%			D2863
Coefficient of Thermal Expansion	6.5E-05	/ºC	3.6E-05	/ºF	E831
Thermal Conductivity 100ºC	0.56	W/m/ºC	0.32	Btu/hr/ft/ºF	E1461

Prior to molding compression electrical specimens, material is dried 30 min @ 90C, 110C preheat.

Limited Shelf-Life. Actual shelf-life obtained is dependent on storage conditions, molding process, and mold design. Store in cool dry place.

*Mold Shrinkage obtained under controlled laboratory conditions with relatively simple mold geometry and should be used for comparison purposes only and not for actual tool design.