PLASTICS ENGINEERING COMPANY
3518 LAKESHORE ROAD
SHEBOYGAN WISCONSIN
920.458.2121 fax 920.458.1923
www.plenco.com

MATERIALS ENGINEERING LABORATORY DATA REPORT

PLENCO 06553

Two-Stage Phenolic compression molded

PLENCO 06553 is a mineral and glass fiber reinforced two-stage phenolic molding compound, formulated for dimensional stability, good chemical resistance to brake fluids, such as DOT 3 and 4, and should provide grinding to close tolerances. 06553 is UL recognized under component file E40654. 06553 is available in black. 06553 was qualified under military specification MIL-M 14 (superseded by ASTM D-5948) TYPE MFH and batches can, if requested and paid for, be tested for certification to the standard.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	1.02	g/cm³	63.8	lb/ft³	D1895
Specific Gravity	2.12				D792
Mold Shrinkage*	0.0005	m/m	0.0005	in/in	D6289
Post Shrinkage 72hr 120ºC	0.03	%			D6289
Izod Impact Notched	21.9	J/m	0.41	ft·lb/in	D256
Charpy Impact Notched	26.6	J/m	0.50	ft·lb/in	D256
Drop Ball Impact	95	J/m	1.8	ft·lb/in	Plenco
Tensile Strength	56	MPa	8,125	psi	D638
Tensile Modulus	25,348	MPa	3,676,000	psi	D638
Tensile Elongation	0.3	%			D638
Flexural Strength	95.7	MPa	13,882	psi	D790
Flexural Modulus	20,504	MPa	2,974,000	psi	D790
Compressive Strength	204	MPa	29,558	psi	D695
Heat Resistance	225	°C	437	ºF	D794
Deflection Temperature 1.82MPa	231	°C	447	ºF	D648
Water Absorption	0.04	%			D570
Rockwell Hardness	91	E scale			D785
Dielectric Strength short time	11.7	kV/mm	297	V/mil	D149
Dissipation Factor, 1MHz	0.046				D150
Permittivity, 1MHz	5.5				D150
Volume Resistivity	5.3E+12	ohm·cm	2.1E+12	ohm·in	D257
ASTM Arc Resistance	192	sec			D495
Comparative Tracking Index	210	V			D3638
UL Flammability	V-0 @1.50mm				UL 94
Oxygen Index	46.2	%			D2863
Coefficient of Thermal Expansion	2.2E-05	/ºC	1.2E-05	/ºF	E831
Thermal Conductivity 100ºC	0.94	W/m/ºC	0.54	Btu/hr/ft/ºF	E1461

Prior to molding compression electrical specimens, material is dried 30 min @ 90C, 110C preheat. ver 060915

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.*