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MATERIALS ENGINEERING LABORATORY DATA REPORT

PLENCO 04304

Two-Stage Phenolic injection molded

PLENCO 04304 is a heat resistant, mineral filled phenolic molding compound offering improved mechanical strength properties along with excellent dimensional stability. UL recognized under component file E40654. 04304 is available in black.

PROPERTY	metric		english		ASTM Test Method
Form	Nodular				
Apparent Density	0.70	g/cm³	43.4	lb/ft³	D1895
Specific Gravity	1.55				D792
Mold Shrinkage*	0.0061	m/m	0.0061	in/in	D6289
Post Shrinkage 72hr 120ºC	0.23	%			D6289
Izod Impact Notched	23.6	J/m	0.44	ft·lb/in	D256
Charpy Impact Notched	20.7	J/m	0.39	ft·lb/in	D256
Drop Ball Impact	169	J/m	3.2	ft·lb/in	Plenco
Tensile Strength	51	MPa	7,339	psi	D638
Tensile Modulus	9,241	MPa	1,340,000	psi	D638
Tensile Elongation	0.8	%			D638
Flexural Strength	88.2	MPa	12,785	psi	D790
Flexural Modulus	9,581	MPa	1,390,000	psi	D790
Compressive Strength	150	MPa	21,727	psi	D695
Heat Resistance	190	°C	374	ºF	D794
Deflection Temperature 1.82MPa	196	°C	384	ºF	D648
Water Absorption	0.21	%			D570
Rockwell Hardness	68	E scale			D785
Dielectric Strength short time	11.5	kV/mm	292	V/mil	D149
Dissipation Factor, 1MHz	0.056				D150
Permittivity, 1MHz	4.9				D150
Volume Resistivity	2.6E+11	ohm·cm	1.0E+11	ohm·in	D257
ASTM Arc Resistance	180	sec			D495
Comparative Tracking Index	188	V			D3638
UL Flammability	V-0 @6.00mm				UL 94
Oxygen Index	34.8	%			D2863
Coefficient of Thermal Expansion	4.6E-05	/ºC	2.5E-05	/ºF	E831
Thermal Conductivity 100ºC	0.57	W/m/ºC	0.33	Btu/hr/ft/ºF	E1461

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.*