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MATERIALS ENGINEERING LABORATORY DATA REPORT

Plenco 01586

Polyester
injection molded

Plenco 01586 is a glass and mineral reinforced pelletized polyester molding compound offering excellent heat resistance and mechanical strength properties. Customers have found this material useful for injection molded electrical appliance components. UL recognized under component file E40654. 01586 is available in grey color.

PROPERTY	metric		english		ASTM Test Method
Form	Pellet				
Apparent Density	0.88	g/cm³	54.9	lb/ft³	D1895
Specific Gravity	1.89				D792
Mold Shrinkage*	0.0036	m/m	0.0036	in/in	D6289
Post Shrinkage 72hr 120ºC	0.01	%			D6289
Izod Impact Notched	43.9	J/m	0.82	ft·lb/in	D256
Charpy Impact Notched	36.3	J/m	0.68	ft·lb/in	D256
Drop Ball Impact	305	J/m	5.7	ft·lb/in	Plenco
Tensile Strength	66	MPa	9,509	psi	D638
Tensile Modulus	11,667	MPa	1,692,000	psi	D638
Tensile Elongation	1.1	%			D638
Flexural Strength	102.7	MPa	14,894	psi	D790
Flexural Modulus	10,449	MPa	1,516,000	psi	D790
Compressive Strength	119	MPa	17,234	psi	D695
Heat Resistance	216	°C	422	ºF	D794
Deflection Temperature 1.82MPa	254	°C	488	ºF	D648
Water Absorption	0.06	%			D570
Rockwell Hardness	54	E scale			D785
Dielectric Strength short time	13.1	kV/mm	332	V/mil	D149
Dissipation Factor, 1MHz	0.017				D150
Permittivity, 1MHz	4.4				D150
Volume Resistivity	1.9E+15	ohm·cm	7.4E+14	ohm·in	D257
ASTM Arc Resistance	189	sec			D495
Comparative Tracking Index	600	V			D3638
UL Flammability	V-0 @1.0mm				UL 94
Oxygen Index	39.9	%			D2863
Coefficient of Thermal Expansion	8.7E-05	/ºC	4.8E-05	/ºF	E831
Thermal Conductivity 100ºC	0.88	W/m/ºC	0.51	Btu/hr/ft/ºF	E1461

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.