

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/cm ³	54.9 lb/ft ³	D1895
Specific Gravity	1.89		D792
Mold Shrinkage*	0.0036 m/m	0.0036 in/in	D6289
Post Shrinkage 72hr 120°C	0.01 %		D6289
Izod Impact Notched	43.4 J/m	0.81 ft·lb/in	D256
Charpy Impact Notched	35.9 J/m	0.67 ft·lb/in	D256
Drop Ball Impact	303 J/m	5.7 ft·lb/in	Plenco
Tensile Strength	65 MPa	9,489 psi	D638
Tensile Modulus	11,681 MPa	1,694,000 psi	D638
Tensile Elongation	1.1 %		D638
Flexural Strength	102.6 MPa	14,886 psi	D790
Flexural Modulus	10,409 MPa	1,510,000 psi	D790
Compressive Strength	119 MPa	17,255 psi	D695
Heat Resistance	216 °C	422 °F	D794
Deflection Temperature 1.82MPa	253 °C	488 °F	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 @1.00mm		UL 94
Oxygen Index	39.9 %		D2863
Coefficient of Thermal Expansion	6.8E-05 /°C	3.8E-05 /°F	E831
Thermal Conductivity 100°C	0.87 W/m/°C	0.50 Btu/hr/ft/°F	E1461

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Store in cool dry place.

The Typical Values listed are results obtained from the testing of standard specimens using the stated test procedures, with said specimens molded under controlled laboratory conditions from representative samplings of the product. Although Plastics Engineering Company at all times reserves the right to make changes in the materials, suppliers and processing, the values listed as typical are those to be expected at the time of our manufacture. The final determination of the accuracy or completeness of any information, the suitability of the product for the use contemplated, the manner of its use, and the matter of any infringement of patents in use, are all the sole responsibility of the user. PLASTICS ENGINEERING COMPANY MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THIS PRODUCT, INCLUDING NO WARRANTY OF THE MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. Plastics Engineering Company reserves at all times the right to discontinue the production of any or all of its products. This is an uncontrolled copy and not subject to updates.

**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.*