

# MATERIALS ENGINEERING LABORATORY

## DATA REPORT

### PLENCO 01581

#### Polyester injection molded

PLENCO 01581 is a glass and mineral reinforced pelletized polyester molding compound, exhibiting excellent dimensional stability, mechanical strength and also arc resistance, track resistance, and flammability ratings. UL recognized under component file E40654. 01581 is available in a wide range of colors.

PROPERTY	metric	english	ASTM Test Method
Form	pellet		
Apparent Density	0.83 g/cm <sup>3</sup>	51.7 lb/ft <sup>3</sup>	D1895
Specific Gravity	1.83		D792
Mold Shrinkage	0.0037 m/m	0.0037 in/in	D6289
Post Shrinkage 72hr 120°C	0.01 %		D6289
Izod Impact Notched	38.6 J/m	0.72 ft-lb/in	D256
Charpy Impact Notched	30.8 J/m	0.58 ft-lb/in	D256
Drop Ball Impact	260 J/m	4.9 ft-lb/in	Plenco
Tensile Strength	66 MPa	9,512 psi	D638
Tensile Modulus	11,705 MPa	1,698,000 psi	D638
Tensile Elongation	1.1 %		D638
Flexural Strength	106.3 MPa	15,422 psi	D790
Flexural Modulus	10,666 MPa	1,547,000 psi	D790
Compressive Strength	131 MPa	18,970 psi	D695
Heat Resistance	212 °C	414 °F	D794
Deflection Temperature 1.82MPa	267 °C	513 °F	D648
Water Absorption	0.09 %		D570
Rockwell Hardness	62 E scale		D785
Dielectric Strength short time	14.4 kV/mm	366 V/mil	D149
Dielectric Strength Step	11.4 kV/mm	289 V/mil	D149
Dissipation Factor, 1MHz	0.020		D150
Permittivity, 1MHz	4.3		D150
Volume Resistivity	1.7E+15 ohm-cm	6.6E+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	46.6 %		D2863
Thermal Expansion	6.7E-05 /°C	3.7E-05 /°F	E831
Thermal Conductivity 100°C	0.91 W/m/°C	0.52 Btu/hr/ft/°F	E1461

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.*