

# MATERIALS ENGINEERING LABORATORY

## DATA REPORT

### Plenco 05351

#### Two-Stage Phenolic injection molded

Plenco 05351 is a mineral and graphite filled phenolic molding compound. Customers have found this material useful for seal applications. Plenco 05351 offers excellent dimensional stability, lubricity, and low abrasion properties. 05351 is available in gray. 05351 is not recommended for electrical insulating applications.

PROPERTY	metric	english	ASTM Test Method
Form	Granular		
Apparent Density	0.92 g/cm <sup>3</sup>	57.7 lb/ft <sup>3</sup>	D1895
Specific Gravity	1.74		D792
Mold Shrinkage*	0.0042 m/m	0.0042 in/in	D6289
Post Shrinkage 72hr 120°C	0.08 %		D6289
Izod Impact Notched	17.5 J/m	0.33 ft-lb/in	D256
Charpy Impact Notched	15.5 J/m	0.29 ft-lb/in	D256
Drop Ball Impact	45 J/m	0.8 ft-lb/in	Plenco
Tensile Strength	47 MPa	6,844 psi	D638
Tensile Modulus	16,399 MPa	2,378,000 psi	D638
Tensile Elongation	0.3 %		D638
Flexural Strength	78.7 MPa	11,422 psi	D790
Flexural Modulus	13,799 MPa	2,001,000 psi	D790
Compressive Strength	154 MPa	22,298 psi	D695
Heat Resistance	247 °C	476 °F	D794
Deflection Temperature 1.82MPa	182 °C	360 °F	D648
Water Absorption	0.04 %		D570
Rockwell Hardness	86 E scale		D785
Dielectric Strength short time	kV/mm	V/mil	D149
Dissipation Factor, 1MHz			D150
Permittivity, 1MHz			D150
Volume Resistivity	ohm-cm	ohm-in	D257
ASTM Arc Resistance	sec		D495
Comparative Tracking Index	V		D3638
UL Flammability			UL 94
Oxygen Index	%		D2863
Coefficient of Thermal Expansion	3.2E-05 /°C	1.8E-05 /°F	E831
Thermal Conductivity 100°C	1.46 W/m°C	0.84 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.*

\*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.