

06000

Series

Glass Fiber/Specialty Phenolic Materials

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Plenco's 06000 series

06000 products are mostly glass fiber reinforced phenolic molding materials. Some, however, were designed to perform highly specialized functions in oil and gas, military, medical and aerospace applications.

These products offer impressive combinations of compressive and tensile strengths, heat resistance, surface hardness and wear resistance.

With proper post-baking, they provide some of the highest property retention at elevated temperatures in the plastics industry.

Resol and Novolac resins are chosen based on application need and multiple flow options are typically available within each product type for optimal injection, compression or transfer molding.



Applications



Plenco 06000 materials are often selected to perform demanding tasks at constant, elevated temperatures and/or in exposure to harsh chemicals.

They have been successfully specified in small engine, automotive and off-road applications including cam lobes and sprockets, pump impellers and housings, transmission components, bearing journals, brake boosters, caliper pistons, heat dams and carburetor spacers.

Plenco 06000 series products provide the Oil and Gas Industry with durable, composite structures offering superior property retention in high-temperature, corrosive, down-hole environments.



Typical Data Sheet Property Ranges* - Plenco 06000 series

PROPERTY	ENGLISH	ASTM METHOD
Form	Granular	
Apparent Density (lb/ft ³)	36.1 - 138.5	D1895
Specific Gravity	1.50 - 3.44	D792
Mold Shrinkage	0.0007 - 0.0049**	D955
Post Shrink	0.00% - 0.30%	D1299
Izod Impact-notched (ft*lb/in)	0.30 - 1.09	D256
Charpy Impact-notched (ft*lb/in)	0.35 - 0.96	D256
Tensile Strength (psi)	4,800 - 24,900	D638
Tensile Modulus (msi)	1.3 - 3.6	D638
Tensile Elongation (%)	0.20 - 1.1	D638
Flexural Strength (psi)	7,800 - 36,400	D790
Flexural Modulus (msi)	1.1 - 2.9	D790
Compressive Strength (psi)	16,900 - 56,500	D695
Rockwell Hardness (E scale)	43 - 103	D785
Heat Resistance (°F)	371- 482	D794
Heat Deflection - 1.82MPa (°F)	335 - 518	D648
Water Absorption (%)	0.20 - 0.23	D570
Dielectric Strength - ST (V/mil)	94 - 468	D149
Comparative Tracking Index (V)	175 - 250	D3638
ASTM Arc Resistance (sec)	40 - 190	D495
UL Flammability (@1.47mm)	V-0, 5V	UL94
CTE by TMA - 40°C to 130°C (°F)	1.2 E-05 - 2.4 E-05	
Thermal Conductivity @ 212°F	0.25 - 0.54 (Btu/hr/ft/°F)	
Poisson's Ratio in Tension	0.27 - 0.35	



Please consult your Plenco Technical Sales Representative for specific material details. Fitness for use must be determined by the end user.

* Properties listed above are the range of properties available from Plenco material data sheets. The range was taken from injection, compression and transfer molded sample data as available on www.plenco.com.

**Mold shrinkage values are generated under controlled laboratory conditions. Values provided above are for reference only and should not be used alone to design or build molds.