

07000

Series

Impact Modified Phenolic Materials

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Plenco's 07000 series

Plenco 07000 products are phenolic molding materials enhanced by the addition of organic or glass fibers. They provide superior shock, vibration and impact resistance as compared to other organic and mineral filled phenolic materials, while maintaining a low specific gravity.

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

07000 series products are available with Resol or Novolac resin systems to help meet specific application requirements. Multiple flow options are typically available within each product type for efficient injection, compression or transfer molding operations.



Applications



Plenco 07000 materials are generally recommended for applications where excellent heat resistance and dimensional stability are required, but repeated shock or vibration make a general purpose phenolic products impractical. They are also employed where glass fiber or higher specific gravity are intolerable.

07000 products have served numerous automotive and small engine applications including starter solenoids and relay housings.

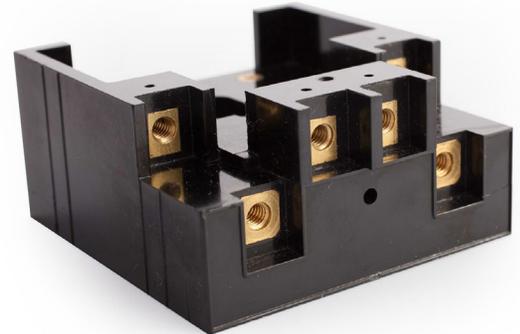
They have seen extensive use in industrial power distribution systems as contact and relay housings, switch blocks, fuse holders and terminal strips.

In pump and blower applications they have served as impellers and housings and are well suited for application in corrosive environments.



Typical Data Sheet Property Ranges* - Plenco 07000 series

PROPERTY	ENGLISH	ASTM METHOD
Form	Granular	
Apparent Density (lb/ft ³)	28.5 - 54.6	D1895
Specific Gravity	1.35 - 1.82	D792
Mold Shrinkage	0.001 - 0.011**	D955
Post Shrink	0.04% - 0.49%	D1299
Izod Impact-notched (ft*lb/in)	.34 - 1.07	D256
Charpy Impact-notched (ft*lb/in)	0.34 - 1.16	D256
Tensile Strength (psi)	5,300 - 10,800	D638
Tensile Modulus (msi)	0.6 - 2.5	D638
Tensile Elongation (%)	0.60 - 1.55	D638
Flexural Strength (psi)	8,200 - 19,800	D790
Flexural Modulus (msi)	0.6 - 2.3	D790
Compressive Strength (psi)	12,600 - 32,900	D695
Rockwell Hardness (E scale)	57 - 95	D785
Heat Resistance (°F)	338 - 437	D794
Heat Deflection - 1.82MPa (°F)	285 - 536	D648
Water Absorption (%)	0.06 - 0.84	D570
Dielectric Strength - ST (V/mil)	182 - 418	D149
Comparative Tracking Index (V)	125 - 200	D3638
ASTM Arc Resistance (sec)	30 - 190	D495
UL Flammability (@1.47mm)	HB - V-0	UL94
CTE by TMA - 40°C to 130°C (°F)	4.2 E-05 - 6.7 E-05	
Thermal Conductivity @ 212°F	0.19 - 0.33 (Btu/hr/ft/°F)	
Poisson's Ratio in Tension	0.30 - 0.36	



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.