

01500

Series

Granular Polyester Molding Compounds

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Plenco's 01500 series

01500 products are styrene-free, thermosetting polyester molding materials. They provide exceptional electrical properties, heat resistance and physical strength in a high-gloss finish. Plenco 01500 materials may employ organic, mineral and fiberglass reinforcements to enhance desired properties. PTFE, graphite and other fillers may also be used to improve wear resistance, static dissipation and more.



01500 products are provided in dry, pellet or granular form and can be easily processed by injection, transfer and compression molding. They do not require a stuffer or check ring for injection molding.

Plenco 01500 materials have a typical shelf life of two years or longer. Color options and customization are available for several 01500 products at minimum production levels.

Applications

Plenco 01500 products are most frequently specified for applications where exceptional electrical insulation, tracking resistance and dimensional stability are required at elevated temperatures. As such they have been employed in automotive, marine, off-road, HVAC, industrial and commercial power distribution and home appliance markets.

They have been highly successful in automotive, marine and off-road ignition components, relay housings and starter solenoids.

01500 products have been specified as electric motor brush holders and heat shields in appliance, power tool and other applications.



They are widely used in electrical circuit breaker applications, low-voltage disconnects and HVAC circuitry.



Typical Data Sheet Property Ranges* - Plenco 01500 series

PROPERTY	ENGLISH	ASTM METHOD
Form	Granular or Pellet	
Apparent Density (lb/ft ³)	41.8 - 60.2	D1895
Specific Gravity	1.70 - 2.83	D792
Mold Shrinkage	0.0012 - 0.0091**	D955
Post Shrink	0.00 - 0.06%	D1299
Izod Impact-notched (ft*lb/in)	0.31 - 1.45	D 256
Charpy Impact-notched (ft*lb/in)	0.34 - 1.36	D256
Tensile Strength (psi)	4,900 - 12,100	D638
Tensile Modulus (msi)	1.3 - 2.9	D638
Tensile Elongation (%)	0.41 - 1.32	D638
Flexural Strength (psi)	9,600 - 20,300	D790
Flexural Modulus (msi)	1.4 - 2.9	D790
Compressive Strength (psi)	17,300 - 29,000	D695
Rockwell Hardness (E scale)	51 - 85	D785
Heat Resistance (°F)	333 - 433	D794
Heat Deflection - 1.82MPa (°F)	344 - 532	D648
Water Absorption (%)	0.06 - 0.35	D570
Dielectric Strength - ST (V/mil)	315 - 394	D149
Comparative Tracking Index (V)	600	D3638
ASTM Arc Resistance (sec)	180-200	D495
UL Flammability (@1.47mm)	HB, V-1, V-0	UL94
CTE by TMA - 40°C to 130°C (°F)	4.6 E-05 - 8.6 E-05	
Thermal Conductivity @ 212°F	0.39 - 0.52 (Btu/hr/ft/°F)	
Poisson's Ratio in Tension	0.28 - 0.33	



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.