

Plenco 04599 (Compression)

Phenolic

Plastics Engineering Co.

Message:

PLENCO 04599 is a mineral filled, phenolic molding compound offering excellent heat resistance and dimensional stability, typically required for automotive ashtray applications. 04599 is formulated to provide improved cosmetic characteristics and mechanical strength properties. 04599 is available in black.

General Information			
Filler / Reinforcement	Mineral filler		
Features	Good dimensional stability		
	Good strength		
	Heat resistance, high		
Uses	Application in Automobile Field		
Appearance	Black		
Forms	Particles		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.50	g/cm ³	ASTM D792
Apparent Density	0.62	g/cm ³	ASTM D1895
Molding Shrinkage - Flow	0.38	%	ASTM D955
Water Absorption (24 hr)	0.21	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (E-Scale)	89		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10100	MPa	ASTM D638
Tensile Strength	62.0	MPa	ASTM D638
Tensile Elongation (Break)	0.70	%	ASTM D638
Flexural Modulus	9430	MPa	ASTM D790
Flexural Strength	83.1	MPa	ASTM D790
Compressive Strength	216	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	19.5	J/m	ASTM D256
Notched Izod Impact	17	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	204	°C	ASTM D648
Continuous Use Temperature	217	°C	ASTM D794
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.4E+12	ohms · cm	ASTM D257

Dielectric Strength ¹	13	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.80		ASTM D150
Dissipation Factor (1 MHz)	0.077		ASTM D150
Arc Resistance	159	sec	ASTM D495
Comparative Tracking Index (CTI)	175	V	UL 746

Additional Information

The value listed as Comparative Tracking Index, UL 746 was tested according to ASTM D3638. The value listed as Mold Shrink, Linear-Flow, ASTM D955 was tested according to the ASTM D6289 standard. Post Shrinkage, ASTM D6289, 72hr, 120°C: 0.18% Drop Ball Impact, PLENCO Method: 85 J/m

Injection	Nominal Value	Unit
Drying Temperature	90.0	°C
Drying Time	0.50	hr
Mold Temperature	165 - 182	°C
Back Pressure	0.300	MPa
Screw Speed	< 60	rpm

Injection instructions

Mold Close Time: 3-8 sec

NOTE

- Method A (short time)

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