

Plenco 07080 (Compression)

Phenolic

Plastics Engineering Co.

Message:

PLENCO 07080 is an organic fiber reinforced phenolic molding compound, offering improved mechanical strength properties along with outstanding resistance to cracking and degradation from soap and detergent solutions at elevated temperatures. UL recognized under component file E40654. 07080 is available in black.

General Information			
Filler / Reinforcement	Organic filler		
Features	Good cracking resistance		
	Good strength		
	Detergent resistance		
UL File Number	E40654		
Appearance	Black		
Forms	Tumor		
Processing Method	Compression molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.42	g/cm ³	ASTM D792
Apparent Density	0.54	g/cm ³	ASTM D1895
Molding Shrinkage - Flow	0.36	%	ASTM D955
Water Absorption (24 hr)	0.48	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (E-Scale)	68		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7370	MPa	ASTM D638
Tensile Strength	50.0	MPa	ASTM D638
Tensile Elongation (Break)	0.80	%	ASTM D638
Flexural Modulus	6510	MPa	ASTM D790
Flexural Strength	76.8	MPa	ASTM D790
Compressive Strength	158	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	30.4	J/m	ASTM D256
Notched Izod Impact	26	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	201	°C	ASTM D648
Continuous Use Temperature	188	°C	ASTM D794
CLTE - Flow	5.4E-5	cm/cm/°C	ASTM E831
Thermal Conductivity (100°C)	0.42	W/m/K	ASTM C177

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.6E+12	ohms·cm	ASTM D257
Dielectric Strength ¹	9.7	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	6.80		ASTM D150
Dissipation Factor (1 MHz)	0.069		ASTM D150
Arc Resistance	140	sec	ASTM D495
Comparative Tracking Index (CTI)	150	V	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (5.10 mm)	V-0		UL 94
Oxygen Index	29	%	ASTM D2863

Additional Information

The value listed as Thermal Conductivity, ASTM C177 was tested according to the ASTM E1461 standard. 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: 0.42% Drop Ball Impact, PLENCO Method: 215 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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