

Plenco 07100 (Injection)

Phenolic

Plastics Engineering Co.

Message:

PLENCO 07100 is an organic fiber reinforced phenolic molding compound, with improved mechanical strength properties and an industrial finish. 07100 is densified for easy handling and good pourability. UL recognized under component file E40654. 07100 is available in black.

General Information			
UL YellowCard	E40654-231627		
Filler / Reinforcement	Organic filler		
Features	Good strength		
	Excellent appearance		
UL File Number	E40654		
Appearance	Black		
Forms	Tumor		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.39	g/cm ³	ASTM D792
Apparent Density	0.59	g/cm ³	ASTM D1895
Molding Shrinkage - Flow	0.86	%	ASTM D955
Water Absorption (24 hr)	0.55	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (E-Scale)	79		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	8000	MPa	ASTM D638
Tensile Strength	52.0	MPa	ASTM D638
Tensile Elongation (Break)	0.80	%	ASTM D638
Flexural Modulus	6450	MPa	ASTM D790
Flexural Strength	71.3	MPa	ASTM D790
Compressive Strength	182	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	22.6	J/m	ASTM D256
Notched Izod Impact	24	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	154	°C	ASTM D648
Continuous Use Temperature	184	°C	ASTM D794
CLTE - Flow	5.1E-5	cm/cm/°C	ASTM E831
Thermal Conductivity (100°C)	0.40	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method

Volume Resistivity	2.7E+12	ohms·cm	ASTM D257
Dielectric Strength ¹	9.9	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.00		ASTM D150
Dissipation Factor (1 MHz)	0.053		ASTM D150
Arc Resistance	120	sec	ASTM D495
Comparative Tracking Index (CTI)	175	V	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (6.00 mm)	V-0		UL 94
Oxygen Index	27	%	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: 0.38% Drop Ball Impact, PLENCO Method: 192 J/m

Injection	Nominal Value	Unit
Suggested Shot Size	20 - 80	%
Rear Temperature	66.0 - 82.0	°C
Front Temperature	82.0 - 99.0	°C
Processing (Melt) Temp	104 - 115	°C
Mold Temperature	165 - 182	°C
Injection Pressure	6.20 - 11.0	MPa
Back Pressure	0.300	MPa
Screw Speed	< 60	rpm
Cushion	3.00	mm

Injection instructions

Injection Time: 3-8 sec

NOTE

- Method A (short time)

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