# Plenco 04466 (Compression)

#### Phenolic

Plastics Engineering Co.

### Message:

PLENCO 04466 is a heat resistant, mineral and flock filled phenolic molding compound, offering excellent mechanical strength and cosmetic properties. UL recognized under component file E40654. 04466 is available in black.

General Information			
UL YellowCard	E40654-231610		
Filler / Reinforcement	Mineral filler		
	Soft filling		
Features	Good strength		
	Heat resistance, high		
UL File Number	E40654		
Appearance	Black		
Forms	Particles		
Processing Method	Compression molding		
Physical Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.60	g/cm³	ASTM D792
Apparent Density	0.63	g/cm³	ASTM D1895
·		%	
Molding Shrinkage - Flow	0.31		ASTM D955
Water Absorption (24 hr)	0.13	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (E-Scale)	79		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10900	MPa	ASTM D638
Tensile Strength	45.0	MPa	ASTM D638
Tensile Elongation (Break)	0.40	%	ASTM D638
Flexural Modulus	9770	MPa	ASTM D790
Flexural Strength	63.2	MPa	ASTM D790
Compressive Strength	153	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	21.8	J/m	ASTM D256
Notched Izod Impact	18	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	217	°C	ASTM D648
Continuous Use Temperature	208	°C	ASTM D794

Thermal Conductivity (100°C)	0.57	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.1E+12	ohms·cm	ASTM D257
Dielectric Strength <sup>1</sup>	14	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.50		ASTM D150
Dissipation Factor (1 MHz)	0.048		ASTM D150
Arc Resistance	185	sec	ASTM D495
Comparative Tracking Index (CTI)	175	V	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	V-0		UL 94
Oxygen Index	32	%	ASTM D2863
Additional Information			

The value listed as Thermal Conductivity, ASTM C177 was tested according to the ASTM E1461 standard. The value listed as Mold Shrink, Linear-Flow, ASTM D955 was tested according to the ASTM D6289 standard. The value listed as Comparative Tracking Index, UL 746 was tested according to ASTM D3638.Post Shrinkage, ASTM D6289, 72hr, 120°C: 0.15%Drop Ball Impact, PLENCO Method: 118 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	МРа	
Screw Speed	< 60	rpm	
Injection instructions			
Mold Close Time: 3-8 sec			
NOTE			

1.

Method A (short time)

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