Plenco 04414 (Transfer)

Phenolic

Plastics Engineering Co.

Message:

PLENCO 04414 is a flock and mineral filled phenolic molding compound. It is formulated for use in electrical applications that require improved heat resistance, mechanical strength, and dimensional stability. UL recognized under component file E40654. 04414 is available in black.

General Information			
UL YellowCard	E40654-231609		
Filler / Reinforcement	Mineral filler Soft filling		
Features	Good dimensional stability Good strength Heat resistance, high		
UL File Number	E40654		
Appearance	Black		
Forms	Particles		
Processing Method	Resin transfer molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.54	g/cm³	ASTM D792
Apparent Density	0.63	g/cm³	ASTM D1895
Molding Shrinkage - Flow	0.34	%	ASTM D955
Water Absorption (24 hr)	0.21	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (E-Scale)	79		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	10100	MPa	ASTM D638
Tensile Strength	52.0	MPa	ASTM D638
Tensile Elongation (Break)	0.60	%	ASTM D638
Flexural Modulus	9530	MPa	ASTM D790
Flexural Strength	94.0	MPa	ASTM D790
Compressive Strength	175	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	21.8	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)	195	°C	ASTM D648
Continuous Use Temperature	203	°C	ASTM D794

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.1E+11	ohms·cm	ASTM D257
Dielectric Strength [1]	12	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.30		ASTM D150
Dissipation Factor (1 MHz)	0.051		ASTM D150
Arc Resistance	162	sec	ASTM D495
Comparative Tracking Index (CTI)	175	V	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	V-1		UL 94
Oxygen Index	31	%	ASTM D2863

Additional Information
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: 113 J/m

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

Injection instructions
Transfer Time: 3-8 secTransfer Pressure: 5.5-6.9 MPaPreheating Temperature: 104-115°C

NOTE	
1.	Method A (short time)

Recommended distributors for this material

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