Plenco 03509 (Transfer)

Phenolic

Plastics Engineering Co.

Message:

PLENCO 03509 is a mineral and flock filled phenolic molding compound offering excellent electrical properties, dimensional stability, and improved heat resistance. UL recognized under component file E40654. 03509 is available in black or brown.

General Information			
UL YellowCard	E40654-231597		
Filler / Reinforcement	Mineral filler Soft filling		
Features	Good dimensional stability Good electrical performance Heat resistance, high		
UL File Number	E40654		
Appearance	Brown Black		
Forms	Particles		
Processing Method	Resin transfer molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.60	g/cm³	ASTM D792
Apparent Density	0.64	g/cm³	ASTM D1895
Molding Shrinkage - Flow	0.30	%	ASTM D955
Water Absorption (24 hr)	0.14	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (E-Scale)	85		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	10700	MPa	ASTM D638
Tensile Strength	61.0	MPa	ASTM D638
Tensile Elongation (Break)	0.80	%	ASTM D638
Flexural Modulus	9840	MPa	ASTM D790
Flexural Strength	99.5	MPa	ASTM D790
Compressive Strength	201	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	22.1	J/m	ASTM D256
Notched Izod Impact	20	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**

Deflection Temperature Under Load (1.8 MPa, Unannealed)	194	°C	ASTM D648
Continuous Use Temperature	204	°C	ASTM D794
CLTE - Flow	4.7E-5	cm/cm/°C	ASTM E831
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	5.3E+11	ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
-- [1]	16	kV/mm	ASTM D149
-- [2]	12	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.30		ASTM D150
Dissipation Factor (1 MHz)	0.041		ASTM D150
Arc Resistance	161	sec	ASTM D495
Comparative Tracking Index (CTI)	175	V	UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (3.00 mm)	V-0		UL 94
Oxygen Index	38	%	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: 0.12%Heat Resistance, ASTM D794: 204°CDrop Ball Impact, PLENCO Method: 126 J/m

NOTE	
1.	Method A (short time)
2.	Method B (step by step)

Recommended distributors for this material

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