Plenco 07476 (Transfer)

Phenolic

Plastics Engineering Co.

Message:

PLENCO 07476 is a cotton flock filled resole phenolic molding compound, with improved physical strength, crack resistance, and is resistant to soap and detergent solutions at elevated temperatures. UL recognized under component file E40654. 07476 is available in black.

District Features Features	General Information			
Good cracking resistance Good strength Detergent resistance UL File Number £40654 Appearance Black Forms Particles Processing Method Resin transfer molding Physical Nominal Value Unit Test Method Specific Gravity 1.42 g/cm³ ASTM D792 Apparent Density 0.52 g/cm³ ASTM D795 Molding Shrinkage - Flow 0.58 % ASTM D795 Mater Absorption (24 hr) 0.42 % ASTM D795 Mater Absorption (24 hr) 0.42 % ASTM D790 Mater Absorption (24 hr) 78 ASTM D790 ASTM D790 Mechanical Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 7200 MPa ASTM D638 Tensile Strength 56.0 MPa ASTM D638 Tensile Diongation (Break) 1.0 % ASTM D638 Tensile Strength 81.1 MPa ASTM D648 Elexural Strengt	UL YellowCard	E40654-100708443		
	Filler / Reinforcement	Soft filling		
Detergent resistance Legent Method Legent Method	Features	Good cracking resistance		
E40654 Appearance Black Forms Particles Processing Method Resin transfer molding Physical Nominal Value Unit Test Method Specific Gravity 1.42 g/cm³ ASTM D792 Apparent Density 0.52 g/cm³ ASTM D1895 Molding Shrinkage - Flow 0.58 % ASTM D570 Water Absorption (24 hr) 0.42 % ASTM D570 Machanical Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 78 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 7200 MPa ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Flexural Strength 8.1 MPa ASTM D638 Flexural Strength 90 MPa ASTM D695 Impact Nominal Value Unit Test Method		Good strength		
Appearance Black Forms Particles Processing Method Resin transfer molding Physical Nominal Value Unit Test Method Specific Gravity 1.42 g/cm³ ASTM D792 Apparent Density 0.52 g/cm³ ASTM D895 Molding Shrinkage - Flow 0.58 % ASTM D950 Water Absorption (24 hr) 0.42 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 78 Unit Test Method Rockwell Bodulus 7200 MPa ASTM D638 Tensile Strength 56.0 MPa ASTM D638 Tensile Longation (Break) 1.0 % ASTM D638 Flexural Strength 88.0 MPa ASTM D638 Flexural Strength 81.1 MPa ASTM D636 Compressive Strength 190 MPa ASTM D655 Impact Nominal Value Unit Test Method Charpy Notched Impa		Detergent resistance		
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Processing Method Resin transfer molding Physical Nominal Value Unit Test Method Specific Gravity 1.42 g/cm³ ASTM D792 Apparent Density 0.52 g/cm³ ASTM D1895 Molding Shrinkage - Flow 0.58 % ASTM D955 Water Absorption (24 hr) 0.42 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 78 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 7200 MPa ASTM D638 Tensile Strength 56.0 MPa ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Flexural Modulus 6890 MPa ASTM D790 Flexural Strength 81.1 MPa ASTM D790 Compressive Strength 190 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 24 </td <td>Appearance</td> <td>Black</td> <td></td> <td></td>	Appearance	Black		
Physical Nominal Value Unit Test Method Specific Gravity 1.42 g/cm³ ASTM D792 Apparent Density 0.52 g/cm³ ASTM D1895 Molding Shrinkage - Flow 0.58 % ASTM D955 Water Absorption (24 hr) 0.42 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 78 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 7200 MPa ASTM D638 Tensile Strength 56.0 MPa ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Flexural Modulus 6890 MPa ASTM D790 Elexural Strength 81.1 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflectio	Forms	Particles		
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Water Absorption (24 hr) 0.42 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 78 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 7200 MPa ASTM D638 Tensile Strength 56.0 MPa ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Flexural Modulus 6890 MPa ASTM D790 Elevarial Strength 81.1 MPa ASTM D790 Compressive Strength 190 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 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) Page Unannealed C ASTM D648 Continuous Use Temperature 4EE-5 Cm/cm/°C AS	Apparent Density	0.52	g/cm³	ASTM D1895
Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 78 XSTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 7200 MPa ASTM D638 Tensile Strength 56.0 MPa ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Flexural Modulus 6890 MPa ASTM D790 Sepural Strength 81.1 MPa ASTM D790 Compressive Strength 190 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 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) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4.4E-5 cm/cm/°C ASTM D54 <td>Molding Shrinkage - Flow</td> <td>0.58</td> <td>%</td> <td>ASTM D955</td>	Molding Shrinkage - Flow	0.58	%	ASTM D955
Rockwell Hardness (E-Scale) 78 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 7200 MPa ASTM D638 Tensile Strength 56.0 MPa ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Flexural Modulus 6890 MPa ASTM D790 Flexural Strength 81.1 MPa ASTM D790 Compressive Strength 190 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 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) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4.4E-5 cm/cm/°C ASTM E831	Water Absorption (24 hr)	0.42	%	ASTM D570
MechanicalNominal ValueUnitTest MethodTensile Modulus7200MPaASTM D638Tensile Strength56.0MPaASTM D638Tensile Elongation (Break)1.0%ASTM D638Flexural Modulus6890MPaASTM D790Flexural Strength81.1MPaASTM D790Compressive Strength190MPaASTM D695ImpactNominal ValueUnitTest MethodCharpy Notched Impact Strength26.3J/mASTM D256Notched Izod Impact24J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)Nominal ValueUnitTest MethodEffection Temperature Under Load (1.8 MPa, Unannealed)199°CASTM D648Continuous Use Temperature195°CASTM D794CLE - Flow4.4E-5cm/cm/°CASTM E831	Hardness	Nominal Value	Unit	Test Method
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Tensile Strength 56.0 MPa ASTM D638 Tensile Elongation (Break) 1.0 % ASTM D638 Flexural Modulus 6890 MPa ASTM D790 Flexural Strength 81.1 MPa ASTM D790 Compressive Strength 190 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 J/m ASTM D256 Notched Izod Impact	Mechanical	Nominal Value	Unit	Test Method
Tensile Elongation (Break) Flexural Modulus 6890 MPa ASTM D790 Flexural Strength 81.1 MPa MPa ASTM D790 MPa ASTM D790 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 Notched Izod Impact 24 J/m ASTM D256 Thermal Nominal Value Unit Test Method ASTM D256 Toest Method Test Method Charpy Notched Impact Test Method ASTM D256 Toest Method Continuous Use Temperature 199 °C ASTM D648 Continuous Use Temperature 44E-5 cm/cm/°C ASTM D794	Tensile Modulus	7200	MPa	ASTM D638
Flexural Modulus 6890 MPa ASTM D790 Flexural Strength 81.1 MPa ASTM D790 Compressive Strength 190 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 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) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4ASTM D794	Tensile Strength	56.0	MPa	ASTM D638
Flexural Strength 81.1 MPa ASTM D790 Compressive Strength 190 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 26.3 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) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4.4E-5 cm/cm/°C ASTM E831	Tensile Elongation (Break)	1.0	%	ASTM D638
Compressive Strength190MPaASTM D695ImpactNominal ValueUnitTest MethodCharpy Notched Impact Strength26.3J/mASTM D256Notched Izod Impact24J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)199°CASTM D648Continuous Use Temperature195°CASTM D794CLTE - Flow4.4E-5cm/cm/°CASTM E831	Flexural Modulus	6890	MPa	ASTM D790
ImpactNominal ValueUnitTest MethodCharpy Notched Impact Strength26.3J/mASTM D256Notched Izod Impact24J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)199°CASTM D648Continuous Use Temperature195°CASTM D794CLTE - Flow4.4E-5cm/cm/°CASTM E831	Flexural Strength	81.1	MPa	ASTM D790
Charpy Notched Impact Strength 26.3 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) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4.4E-5 cm/cm°C ASTM E831	Compressive Strength	190	MPa	ASTM D695
Notched Izod Impact 24 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4.4E-5 cm/cm°C ASTM E831	Impact	Nominal Value	Unit	Test Method
ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)199°CASTM D648Continuous Use Temperature195°CASTM D794CLTE - Flow4.4E-5cm/cm/°CASTM E831	Charpy Notched Impact Strength	26.3	J/m	ASTM D256
Deflection Temperature Under Load (1.8 MPa, Unannealed) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4.4E-5 cm/cm/°C ASTM E831	Notched Izod Impact	24	J/m	ASTM D256
MPa, Unannealed) 199 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 CLTE - Flow 4.4E-5 cm/cm/°C ASTM E831	Thermal	Nominal Value	Unit	Test Method
CLTE - Flow 4.4E-5 cm/cm/°C ASTM E831	•	199	°C	ASTM D648
	Continuous Use Temperature	195	°C	ASTM D794
Electrical Nominal Value Unit Test Method	CLTE - Flow	4.4E-5	cm/cm/°C	ASTM E831
	Electrical	Nominal Value	Unit	Test Method

Volume Resistivity	2.4E+11	ohms·cm	ASTM D257
Dielectric Strength ¹	7.8	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	6.80		ASTM D150
Dissipation Factor (1 MHz)	0.085		ASTM D150
Arc Resistance	160	sec	ASTM D495
Comparative Tracking Index (CTI)	175	V	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	НВ		UL 94
Additional Information			

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: 168 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)

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