# Plenco 07200 (Transfer)

### Phenolic

Plastics Engineering Co.

### Message:

PLENCO 07200 is an organic fiber reinforced phenolic molding compound, offering improved mechanical strength, good powder properties and excellent cosmetic properties. UL recognized under component file E40654. 07200 is available in black.

UL YellowCard         E40654-231628           Filler / Reinforcement         Organic filler           Features         Good strength           UL File Number         E40654           Qappearance         Black           Forms         Particles           Processing Method         Resin transfer molding           Physical         Nominal Value         Unit         Test Method           Specific Gravity         1,37         g/cm²         ASTM D792           Apparen Density         0,41         %         ASTM D955           Molding Shinkage - Flow         8.81         %         ASTM D950           Moldray Shorption (24 hr)         0,41         %         ASTM D950           Hardness         Nominal Value         Unit         Test Method           Reckwell Hardness (E-Scale)         8         L         ASTM D785           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         440         MPa         ASTM D638           Tensile Clongation (Break)         67.4         MPa         ASTM D636           Flexural Modulus         67.4         MPa	General Information			
Features         Good strength           UL File Number         E40654           Appearance         Black           Forms         Particles           Processing Method         Resin transfer molding           Physical         Nominal Value         Unit         Test Method           Specific Gravity         0.54         g/cm²         ASTM D792           Apparent Density         0.54         g/cm²         ASTM D895           Water Absorption (24 hr)         0.41         %         ASTM D700           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         XSTM D783           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Elongation (Break)         4.0         MPa         ASTM D638           Tensile Elongation (Break)         6850         MPa         ASTM D693           Tensile Elongation (Break)         6850         MPa         ASTM D693           Rexural Strength         67.4         MPa         ASTM D695           Rexural Strength         67.4         MPa         ASTM D696	UL YellowCard	E40654-231628		
U. File Number         E40654           Appearance         Black           Forms         Particles           Processing Method         Resin transfer molding           Physical         Nominal Value         Unit         Test Method           Specific Gravity         1.37         g/cm²         ASTM D792           Apparent Density         0.54         g/cm²         ASTM D792           Apparent Density         0.81         %         ASTM D85           Water Absorption (24 hr)         0.41         %         ASTM D79           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         Unit         Test Method           Rockwell Hardness (E-Scale)         86         Water Absorption (24 hr)         ASTM D788           Mechanical         Nominal Value         Unit         Test Method           Tensile Strength         44.0         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Strength         67.4         MPa         ASTM D693           Elevarial Strength         201         MPa         ASTM D648           Impact         Nominal Value	Filler / Reinforcement	Organic filler		
Appearance         Black           Forms         Particles           Processing Method         Resin transfer molding           Physical         Nominal Value         Unit         Test Method           Specific Gravity         1.37         g/cm³         ASTM D792           Apparent Density         0.54         g/cm³         ASTM D895           Molding Shrinkage - Flow         0.81         %         ASTM D955           Water Absorption (24 hr)         0.41         %         ASTM D970           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         Long Mark         ASTM D638           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         44.0         MPa         ASTM D638           Flexural Modulus         6650         MPa         ASTM D693           Flexural Strength         67.4         MPa         ASTM D695           Flexural Strength         23.1         J/m         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impac	Features	Good strength		
Forms         Particles           Processing Method         Resin transfer molding           Physical         Nominal Value         Unit         Test Method           Specific Gravity         1.37         g/cm³         ASTM D792           Apparent Density         0.54         g/cm³         ASTM D1895           Molding Shrinkage - Flow         0.81         %         ASTM D595           Water Absorption (24 hr)         0.41         %         ASTM D570           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         L         ASTM D785           Mechanical         Nominal Value         Unit         Test Method           Tensile Brongth         4.0         MPa         ASTM D638           Tensile Brongtation (Break)         6.6         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Elexural Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D638           Thermal         Nominal Value         Unit <th< td=""><td>UL File Number</td><td>E40654</td><td></td><td></td></th<>	UL File Number	E40654		
Processing Method         Resin transfer molding           Physical         Nominal Value         Unit         Test Method           Specific Gravity         1.37         9/cm³         ASTM D792           Apparent Density         0.54         9/cm³         ASTM D1895           Molding Shrinkage - Flow         0.81         %         ASTM D570           Water Absorption (24 hr)         0.41         %         ASTM D570           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         Last McD785           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Elongation (Break)         6.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Elexural Strength         67.4         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength	Appearance	Black		
Physical         Nominal Value         Unit         Test Method           Specific Gravity         1.37         g/cm²         ASTM D792           Apparent Density         0.54         g/cm²         ASTM D1895           Molding Shrinkage - Flow         0.81         %         ASTM D955           Water Absorption (24 hr)         0.41         %         ASTM D570           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         -         ASTM D785           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Flexural Strength         70.0         MPa         ASTM D695           Umpact         Nominal Value         Unit         Test Method           Compressive Strength         20.1         MPa         ASTM D256           Charpy Notched Impact Strength         Nominal Value         Unit         Test Method </td <td>Forms</td> <td>Particles</td> <td></td> <td></td>	Forms	Particles		
Specific Gravity         1.37         g/cm²         ASTM D792           Apparent Density         0.54         g/cm²         ASTM D1895           Molding Shrinkage - Flow         0.81         %         ASTM D955           Water Absorption (24 hr)         0.41         %         ASTM D570           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         Long Dink         ASTM D785           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         44.0         MPa         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           Deflection Temperature Under Load (1.8 MP2, Unannealed)         "C         ASTM D648           Continuous Use Temperature         195         "C         ASTM D648	Processing Method	Resin transfer molding		
Apparent Density         0.54         g/cm²         ASTM D1895           Molding Shrinkage - Flow         0.81         %         ASTM D955           Water Absorption (24 hr)         0.41         %         ASTM D570           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         -         ASTM D785           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         44.0         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           Deflection Temperature Under Load (1.8         C         ASTM D648	Physical	Nominal Value	Unit	Test Method
Molding Shrinkage - Flow         0.81         %         ASTM D955           Water Absorption (24 hr)         0.41         %         ASTM D570           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86	Specific Gravity	1.37	g/cm³	ASTM D792
Water Absorption (24 hr)         0.41         %         ASTM D570           Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         Unit         Test Method           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Elexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Notched Izod Impact         23         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           Deflection Temperature Under Load (1.8 MPa, Unannealed)         66         °C         ASTM D648           Continuous Use Temperature         195         °C         ASTM D648           Continuous Use Temperature         Nominal Value	Apparent Density	0.54	g/cm³	ASTM D1895
Hardness         Nominal Value         Unit         Test Method           Rockwell Hardness (E-Scale)         86         — ASTM D785           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         44.0         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Notched Izod Impact         23.1         J/m         ASTM D256           Notched Izod Impact         23         J/m         ASTM D648           Deflection Temperature Under Load (1.8 MPa, Unannealed)         "C         ASTM D648           Continuous Use Temperature         195         "C         ASTM D648           Continuous Use Temperature         195         "C         ASTM D649	Molding Shrinkage - Flow	0.81	%	ASTM D955
Rockwell Hardness (E-Scale)         86         ASTM D78S           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         44.0         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Notched Izod Impact         23         J/m         ASTM D256           Notched Izod Impact         23         J/m         ASTM D648           Deflection Temperature Under Load (1.8 MPa, Unannealed)         166         °C         ASTM D648           Continuous Use Temperature         195         °C         ASTM D794           Electrical         Nominal Value         Unit         Test Method           Volume Resistivity         2.3£+11         ohms·cm         ASTM D257	Water Absorption (24 hr)	0.41	%	ASTM D570
Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         44.0         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Notched Izod Impact         23         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           Deflection Temperature Under Load (1.8 MPa, Unannealed)         "C         ASTM D648           Continuous Use Temperature         195         "C         ASTM D794           Electrical         Nominal Value         Unit         Test Method           Volume Resistivity         2.3E+11         ohms·cm         ASTM D257           Dielectric Strength <sup>1</sup> 10         kV/mm         ASTM D149	Hardness	Nominal Value	Unit	Test Method
Tensile Modulus         8330         MPa         ASTM D638           Tensile Strength         44.0         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           Deflection Temperature Under Load (1.8 MPa, Unannealed)         "C         ASTM D648           Continuous Use Temperature         195         "C         ASTM D794           Electrical         Nominal Value         Unit         Test Method           Volume Resistivity         2.3E+11         ohms·cm         ASTM D257           Dielectric Strength <sup>1</sup> 10         kV/mm         ASTM D149           Dielectric Constant (1 MHz)         5.30         *V/mm         ASTM D150	Rockwell Hardness (E-Scale)	86		ASTM D785
Tensile Strength         44.0         MPa         ASTM D638           Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Notched Izod Impact         23         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           Deflection Temperature Under Load (1.8 MPa, Unannealed)         "C         ASTM D648           Continuous Use Temperature         195         "C         ASTM D648           Electrical         Nominal Value         Unit         Test Method           Volume Resistivity         2.3E+11         ohms·cm         ASTM D257           Dielectric Strength <sup>1</sup> 10         kV/mm         ASTM D149           Dielectric Constant (1 MHz)         5.30         **V/mm         ASTM D150	Mechanical	Nominal Value	Unit	Test Method
Tensile Elongation (Break)         0.60         %         ASTM D638           Flexural Modulus         6850         MPa         ASTM D790           Flexural Strength         67.4         MPa         ASTM D790           Compressive Strength         201         MPa         ASTM D695           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         23.1         J/m         ASTM D256           Notched Izod Impact         23         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           Deflection Temperature Under Load (1.8 MPa, Unannealed)         166         °C         ASTM D648           Continuous Use Temperature         195         °C         ASTM D794           Electrical         Nominal Value         Unit         Test Method           Volume Resistivity         2.3E+11         ohms·cm         ASTM D257           Dielectric Strength 1         10         kV/mm         ASTM D149           Dielectric Constant (1 MHz)         5.30         -         ASTM D150	Tensile Modulus	8330	MPa	ASTM D638
Flexural Modulus 6850 MPa ASTM D790 Flexural Strength 67.4 MPa ASTM D790 Compressive Strength 201 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 23.1 J/m ASTM D256 Notched Izod Impact 23 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 166 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 Electrical Nominal Value Unit Test Method Volume Resistivity 2.3E+11 ohms·cm ASTM D257 Dielectric Strength 100 KV/mm ASTM D149 Dielectric Constant (1 MHz) 5.30 KV/mm ASTM D150	Tensile Strength	44.0	MPa	ASTM D638
Flexural Strength 67.4 MPa ASTM D790 Compressive Strength 201 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 23.1 J/m ASTM D256 Notched Izod Impact 23.1 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 166 °C ASTM D48 Continuous Use Temperature 195 °C ASTM D794 Electrical Nominal Value Unit Test Method Volume Resistivity 2.3E+11 ohms·cm ASTM D257 Dielectric Strength 1 10 kV/mm ASTM D150 Dielectric Strength 1 5.30 KV/mm ASTM D150	Tensile Elongation (Break)	0.60	%	ASTM D638
Compressive Strength 201 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 23.1 J/m ASTM D256 Notched Izod Impact 23 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 166 °C ASTM D648 Continuous Use Temperature 195 °C ASTM D794 Electrical Nominal Value Unit Test Method Volume Resistivity 2.3E+11 ohms·cm ASTM D257 Dielectric Strength 1 10 kV/mm ASTM D150	Flexural Modulus	6850	MPa	ASTM D790
ImpactNominal ValueUnitTest MethodCharpy Notched Impact Strength23.1J/mASTM D256Notched Izod Impact23J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)166°CASTM D648Continuous Use Temperature195°CASTM D794ElectricalNominal ValueUnitTest MethodVolume Resistivity2.3E+11ohms·cmASTM D257Dielectric Strength 110kV/mmASTM D149Dielectric Constant (1 MHz)5.30KV/mmASTM D150	Flexural Strength	67.4	MPa	ASTM D790
Charpy Notched Impact Strength 23.1 J/m ASTM D256  Notched Izod Impact 23 J/m ASTM D256  Thermal Nominal Value Unit Test Method  Deflection Temperature Under Load (1.8 MPa, Unannealed) 166 °C ASTM D648  Continuous Use Temperature 195 °C ASTM D794  Electrical Nominal Value Unit Test Method  Volume Resistivity 2.3E+11 ohms·cm ASTM D257  Dielectric Strength 1 10 kV/mm ASTM D150  Dielectric Constant (1 MHz) 5.30	Compressive Strength	201	MPa	ASTM D695
Notched Izod Impact 23 J/m ASTM D256  Thermal Nominal Value Unit Test Method  Deflection Temperature Under Load (1.8 MPa, Unannealed) 166 °C ASTM D648  Continuous Use Temperature 195 °C ASTM D794  Electrical Nominal Value Unit Test Method  Volume Resistivity 2.3E+11 ohms·cm ASTM D257  Dielectric Strength 1 10 kV/mm ASTM D149  Dielectric Constant (1 MHz) 5.30	Impact	Nominal Value	Unit	Test Method
Thermal Nominal Value Unit Test Method  Deflection Temperature Under Load (1.8 MPa, Unannealed) 166 °C ASTM D648  Continuous Use Temperature 195 °C ASTM D794  Electrical Nominal Value Unit Test Method  Volume Resistivity 2.3E+11 ohms·cm ASTM D257  Dielectric Strength 1 10 kV/mm ASTM D149  Dielectric Constant (1 MHz) 5.30	Charpy Notched Impact Strength	23.1	J/m	ASTM D256
Deflection Temperature Under Load (1.8 MPa, Unannealed)  166  Continuous Use Temperature  195  Continuous Use Temperature  Nominal Value  Unit  Test Method  Volume Resistivity  2.3E+11  ohms·cm  ASTM D257  Dielectric Strength 1  10  kV/mm  ASTM D150	Notched Izod Impact	23	J/m	ASTM D256
MPa, Unannealed)166°CASTM D648Continuous Use Temperature195°CASTM D794ElectricalNominal ValueUnitTest MethodVolume Resistivity2.3E+11ohms·cmASTM D257Dielectric Strength 110kV/mmASTM D149Dielectric Constant (1 MHz)5.30LASTM D150	Thermal	Nominal Value	Unit	Test Method
Electrical Nominal Value Unit Test Method  Volume Resistivity 2.3E+11 ohms·cm ASTM D257  Dielectric Strength 1 10 kV/mm ASTM D149  Dielectric Constant (1 MHz) 5.30 ASTM D150	·	166	°C	ASTM D648
Volume Resistivity     2.3E+11     ohms·cm     ASTM D257       Dielectric Strength <sup>1</sup> 10     kV/mm     ASTM D149       Dielectric Constant (1 MHz)     5.30     ASTM D150	Continuous Use Temperature	195	°C	ASTM D794
Dielectric Strength 1 10 kV/mm ASTM D149 Dielectric Constant (1 MHz) 5.30 ASTM D150	Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (1 MHz) 5.30 ASTM D150	Volume Resistivity	2.3E+11	ohms·cm	ASTM D257
	Dielectric Strength <sup>1</sup>	10	kV/mm	ASTM D149
Dissipation Factor (1 MHz) 0.058 ASTM D150	Dielectric Constant (1 MHz)	5.30		ASTM D150
	Dissipation Factor (1 MHz)	0.058		ASTM D150

Arc Resistance	90.0	sec	ASTM D495
Comparative Tracking Index (CTI)	150	V	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (6.00 mm)	V-0		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: 0.39%Drop Ball Impact, PLENCO Method: 154 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

Method A (short time)

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### Recommended distributors for this material

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