Plenco 02000 (Compression)

Phenolic

Plastics Engineering Co.

Message:

PLENCO 02000 is a versatile general purpose, organic filled phenolic molding compound, offering optimum cure characteristics and an excellent balance of molding properties. UL recognized under component file E40654. 02000 is available in black.

U. YellowCard E40654-231883 Filler / Reinforcement Organic filler Features Fast curing General U. File Number E40654 U. File Number E40654 Appearance Black Forms Particles Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1,39 g/cm² ASTM D792 Appearent Density 0,63 g/cm² ASTM D985 Molding Strinkage - Flow 0,44 % ASTM D985 Mater Absorption (24 hr) 0,40 % ASTM D985 Mater Absorption (24 hr) 0,40 % ASTM D985 Meter Absorption (24 hr) 0,40 % ASTM D985 Mater Absorption (24 hr) 0,40 % ASTM D985 Meter Absorption (24 hr) 0,40 % ASTM D985 Meter Absorption (24 hr) 0,40 % ASTM D985 Meter Absorption (24 hr) 0,40 % ASTM D986	General Information			
Features Fast curing General Uses General Ut. File Number £40654 Appearance Black Forms Particles Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm³ ASTM D792 Apparent Density 0.63 g/cm³ ASTM D995 Molding Shrinkage - Flow 0.44 % ASTM D995 Water Absorption (24 hr) 0.40 % ASTM D995 Water Absorption (24 hr) 0.40 % ASTM D795 Water Absorption (24 hr) 0.40 % ASTM D995 Water Absorption (24 hr) 0.40 % ASTM D995 Method and Shringer (25 classes) 90 L ASTM D995 Method (24 hr) MPa ASTM D638 Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Flexural Strength 212 MPa	UL YellowCard	E40654-231583		
USes General UL File Number E40654 Appearance Black Forms Particles Processing Method Teat Method Physical Nominal Value Unit Teat Method Specific Gravity 139 g/cm² ASTM D792 Apparent Density 0.63 g/cm² ASTM D792 Apparent Density 0.63 g/cm² ASTM D795 Molding Shrinkage - Flow 0.44 % ASTM D570 Mater Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Mechanical Nominal Value Unit Test Method Ternsile Elongation (Break) 51.0 MPa ASTM D638 Flexural Modulus 8120 MPa ASTM D693 Flexural Strength 92.3 MPa ASTM D694	Filler / Reinforcement	Organic filler		
Uses General UL File Number £40654 Appearance Black Forms Particles Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm² ASTM D792 Apparent Density 0.63 g/cm² ASTM D895 Molding Shrinkage - Flow 0.44 % ASTM D995 Water Absorption (24 hr) 0.40 % ASTM D79 Marchanicas Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 ASTM D78 Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Elongation (Break) 9.2 MPa ASTM D695 Flexural Strength 92.3 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact	Features	Fast curing		
Bed654 Appearance Black Forms Particles Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm³ ASTM D792 Apparent Density 0.63 g/cm³ ASTM D895 Molding Shrinkage - Flow 0.44 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Blongation (Break) 0.60 % ASTM D638 Tensile Strength 3120 MPa ASTM D638 Flexural Modulus 3120 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 //m AST		General		
Bed654 Appearance Black Forms Particles Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm³ ASTM D792 Apparent Density 0.63 g/cm³ ASTM D895 Molding Shrinkage - Flow 0.44 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Blongation (Break) 0.60 % ASTM D638 Tensile Strength 3120 MPa ASTM D638 Flexural Modulus 3120 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 //m AST				
Appearance Black Forms Particles Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm³ ASTM D792 Apparent Density 0.63 g/cm³ ASTM D1895 Molding Shrinkage - Flow 0.44 % ASTM D955 Water Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Mechanical Nominal Value Unit Test Method Tensile Bottength 51.0 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Flexural Modulus 8120 MPa ASTM D638 Flexural Strength 92.3 MPa ASTM D695 Impact Nominal Value Unit Test Method Compressive Strength 18.7 J/m ASTM D256 Thermal	Uses	General		
Forms Particles Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm² ASTM D792 Apparent Density 0.63 g/cm² ASTM D1895 Molding Shrinkage - Flow 0.44 % ASTM D955 Water Absorption (24 hr) 0.40 % ASTM D70 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Rockwell Hardness (E-Scale) 90 MPa ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m <t< td=""><td>UL File Number</td><td>E40654</td><td></td><td></td></t<>	UL File Number	E40654		
Processing Method Compression molding Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm³ ASTM D792 Apparent Density 0.63 g/cm³ ASTM D1895 Molding Shrinkage - Flow 0.44 % ASTM D955 Water Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Rockwell Hardness (E-Scale) 90 MPa ASTM D68 Mechanical Nominal Value Unit Test Method Tensile Brongation (Break) 51.0 MPa ASTM D638 Tensile Strength 8120 MPa ASTM D638 Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notch	Appearance	Black		
Physical Nominal Value Unit Test Method Specific Gravity 1.39 g/cm³ ASTM D792 Apparent Density 0.63 g/cm³ ASTM D1895 Molding Shrinkage - Flow 0.44 % ASTM D955 Water Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (F-Scale) 90 Unit Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Elongation (Break) 0.60 % ASTM D638 Flexural Strength 8120 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 <	Forms	Particles		
Specific Gravity 1.39 g/cm³ ASTM D792 Apparent Density 0.63 g/cm³ ASTM D1895 Modding Shrinkage - Flow 0.44 % ASTM D955 Water Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Elongation (Break) 51.0 MPa ASTM D638 Tensile Elongation (Break) 0.60 % ASTM D638 Flexural Strength 92.3 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method <td>Processing Method</td> <td>Compression molding</td> <td></td> <td></td>	Processing Method	Compression molding		
Apparent Density 0.63 g/cm³ ASTM D1895 Molding Shrinkage - Flow 0.44 % ASTM D955 Water Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Elongation (Break) 0.60 % ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection	Physical	Nominal Value	Unit	Test Method
Molding Shrinkage - Flow 0.44 % ASTM D955 Water Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Unit Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Elongation (Break) 51.0 MPa ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) Nominal Value "C ASTM D648 Continuous Use Temperature 207 <td< td=""><td>Specific Gravity</td><td>1.39</td><td>g/cm³</td><td>ASTM D792</td></td<>	Specific Gravity	1.39	g/cm³	ASTM D792
Water Absorption (24 hr) 0.40 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) *C ASTM D648 Continuous Use Temperature 207 *C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/cm/°C ASTM E831	Apparent Density	0.63	g/cm³	ASTM D1895
Hardness Nominal Value Unit Test Method Rockwell Hardness (E-Scale) 90 Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Elongation (Break) 0.60 % ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Stexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) "C ASTM D648 Continuous Use Temperature 207 "C ASTM D794 CLEF-Flow 5.9E-5 cm/cm/°C ASTM E831	Molding Shrinkage - Flow	0.44	%	ASTM D955
Rockwell Hardness (E-Scale) 90 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Elongation (Break) 0.60 % ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E811	Water Absorption (24 hr)	0.40	%	ASTM D570
MechanicalNominal ValueUnitTest MethodTensile Modulus8600MPaASTM D638Tensile Strength51.0MPaASTM D638Tensile Elongation (Break)0.60%ASTM D638Flexural Modulus8120MPaASTM D790Flexural Strength92.3MPaASTM D790Compressive Strength212MPaASTM D695ImpactNominal ValueUnitTest MethodCharpy Notched Impact Strength18.7J/mASTM D256Notched Izod Impact17J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)Nominal ValueUnitTest MethodContinuous Use Temperature207°CASTM D648Continuous Use Temperature5.9E-5cm/cm/°CASTM D794	Hardness	Nominal Value	Unit	Test Method
Tensile Modulus 8600 MPa ASTM D638 Tensile Strength 51.0 MPa ASTM D638 Tensile Elongation (Break) 0.60 % ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Rockwell Hardness (E-Scale)	90		ASTM D785
Tensile Strength 51.0 MPa ASTM D638 Tensile Elongation (Break) 0.60 % ASTM D638 Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact Tength 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) Test Method Continuous Use Temperature Steep 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Mechanical	Nominal Value	Unit	Test Method
Tensile Elongation (Break) 6.60 8120 MPa MPa ASTM D790 Flexural Strength 92.3 MPa MPa ASTM D790 MPa ASTM D790 MPa ASTM D695 Impact MPa MPa ASTM D695 Impact Mominal Value Unit Test Method ASTM D256 Notched Izod Impact Strength 17 Nominal Value Unit ASTM D256 Thermal Nominal Value Unit Test Method ASTM D256 Thermal Peffection Temperature Under Load (1.8 MPa, Unannealed) Test Method Continuous Use Temperature 207 C m/cm/°C ASTM D794 ASTM D794	Tensile Modulus	8600	MPa	ASTM D638
Flexural Modulus 8120 MPa ASTM D790 Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Tensile Strength	51.0	MPa	ASTM D638
Flexural Strength 92.3 MPa ASTM D790 Compressive Strength 212 MPa ASTM D695 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Tensile Elongation (Break)	0.60	%	ASTM D638
Compressive Strength212MPaASTM D695ImpactNominal ValueUnitTest MethodCharpy Notched Impact Strength18.7J/mASTM D256Notched Izod Impact17J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)176°CASTM D648Continuous Use Temperature207°CASTM D794CLTE - Flow5.9E-5cm/cm/°CASTM E831	Flexural Modulus	8120	MPa	ASTM D790
ImpactNominal ValueUnitTest MethodCharpy Notched Impact Strength18.7J/mASTM D256Notched Izod Impact17J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load (1.8 MPa, Unannealed)176°CASTM D648Continuous Use Temperature207°CASTM D794CLTE - Flow5.9E-5cm/cm/°CASTM E831	Flexural Strength	92.3	MPa	ASTM D790
Charpy Notched Impact Strength 18.7 J/m ASTM D256 Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Compressive Strength	212	MPa	ASTM D695
Notched Izod Impact 17 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Impact	Nominal Value	Unit	Test Method
Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Charpy Notched Impact Strength	18.7	J/m	ASTM D256
Deflection Temperature Under Load (1.8 MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Notched Izod Impact	17	J/m	ASTM D256
MPa, Unannealed) 176 °C ASTM D648 Continuous Use Temperature 207 °C ASTM D794 CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	Thermal	Nominal Value	Unit	Test Method
CLTE - Flow 5.9E-5 cm/cm/°C ASTM E831	•	176	°C	ASTM D648
	Continuous Use Temperature	207	°C	ASTM D794
Thermal Conductivity (100°C) 0.39 W/m/K ASTM C177	CLTE - Flow	5.9E-5	cm/cm/°C	ASTM E831
	Thermal Conductivity (100°C)	0.39	W/m/K	ASTM C177

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	3.2E+11	ohms·cm	ASTM D257
Dielectric Strength ¹	12	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.20		ASTM D150
Dissipation Factor (1 MHz)	0.052		ASTM D150
Arc Resistance	132	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	28	%	ASTM D2863
A static and the Common Process			

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.The value listed as Thermal Conductivity, ASTM C177 was tested according to the ASTM E1461 standard.Post Shrinkage, ASTM D6289, 72hr, 120°C: 0.20%Heat Resistance, ASTM D794: 207°CDrop Ball Impact, PLENCO Method: 109 J/m

Injection	Nominal Value	Unit	
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)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

