# Plenco 02000 (Injection)

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.

| General Information | | | |
|---|---|---|---|
| UL YellowCard | E40654-231583 | | |
| Filler / Reinforcement | Organic filler | | |
| Features | Fast curing<br>General | | |
| Uses | General | | |
| UL File Number | E40654 | | |
| Appearance | Black | | |
| Forms | Particles | | |
| Processing Method | Injection molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 1.40 | g/cm³ | ASTM D792 |
| Apparent Density | 0.59 | g/cm³ | ASTM D1895 |
| Molding Shrinkage - Flow | 1.0 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.32 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (E-Scale) | 86 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 7620 | MPa | ASTM D638 |
| Tensile Strength | 57.0 | MPa | ASTM D638 |
| Tensile Elongation (Break) | 0.80 | % | ASTM D638 |
| Flexural Modulus | 6820 | MPa | ASTM D790 |
| Flexural Strength | 80.8 | MPa | ASTM D790 |
| Compressive Strength | 198 | MPa | ASTM D695 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | 17.9 | J/m | ASTM D256 |
| Notched Izod Impact | 15 | J/m | ASTM D256 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 155 | °C | ASTM D648 |
| Continuous Use Temperature | 198 | °C | ASTM D794 |
| CLTE - Flow | 5.1E-5 | cm/cm/°C | ASTM E831 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |

| | | | |
|---|---|---|---|
| Volume Resistivity | 2.3E+11 | ohms·cm | ASTM D257 |
| Dielectric Strength [1] | 8.4 | kV/mm | ASTM D149 |
| Dielectric Constant (1 MHz) | 5.40 | | ASTM D150 |
| Dissipation Factor (1 MHz) | 0.059 | | ASTM D150 |
| Arc Resistance | 134 | sec | ASTM D495 |
| Comparative Tracking Index (CTI) | 150 | V | UL 746 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating (1.50 mm) | V-1 | | UL 94 |
| Oxygen Index | 29 | % | 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: 0.38%Heat Resistance, ASTM D794: 198°CDrop Ball Impact, PLENCO Method: 94 J/m | | | |
| **Injection** | **Nominal Value** | **Unit** | |
| Suggested Shot Size | 20 - 80 | % | |
| Rear Temperature | 66.0 - 82.0 | °C | |
| Front Temperature | 82.0 - 99.0 | °C | |
| Processing (Melt) Temp | 104 - 115 | °C | |
| Mold Temperature | 165 - 182 | °C | |
| Injection Pressure | 6.20 - 11.0 | MPa | |
| Back Pressure | 0.300 | MPa | |
| Screw Speed | < 60 | rpm | |
| Cushion | 3.00 | mm | |
| **Injection instructions** | | | |
| Injection Time: 3-8 sec | | | |
| **NOTE** | | | |
| 1. | Method A (short time) | | |

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## Recommended distributors for this material

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