

# Electrafil® PA6/6 03001

Polyamide 66  
Techmer Engineered Solutions

Message:

Electrafil® PA6/6 03001 is a polyamide 66 (nylon 66) product, which contains carbon fiber reinforcement. It can be processed by injection molding and is available in North America.

Features include:

- Impact modification
- Conductivity
- Impact resistance
- heat stabilizer

| General Information                 |  |                   |             |
|-------------------------------------|--|-------------------|-------------|
| Filler / Reinforcement              | Carbon fiber reinforced material                             |                   |             |
| Additive                            | Impact modifier<br>heat stabilizer                           |                   |             |
| Features                            | Conductivity<br>Impact resistance, high<br>Thermal Stability |                   |             |
| Appearance                          | Black  |                   |             |
| Forms                               | Particle   |                   |             |
| Processing Method                   | Injection molding  |                   |             |
| Physical                            | Nominal Value  | Unit              | Test Method |
| Specific Gravity                    | 1.19   | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow (3.18 mm)  | 1.0  | %                 | ASTM D955   |
| Water Absorption (24 hr)            | 0.90   | %                 | ASTM D570   |
| Hardness                            | Nominal Value  | Unit              | Test Method |
| Rockwell Hardness (R-Scale)         | 111  |                   | ASTM D785   |
| Mechanical                          | Nominal Value  | Unit              | Test Method |
| Tensile Strength (Yield)            | 121  | MPa               | ASTM D638   |
| Tensile Elongation (Break)          | 3.0  | %                 | ASTM D638   |
| Flexural Modulus                    | 8270   | MPa               | ASTM D790   |
| Flexural Strength                   | 165  | MPa               | ASTM D790   |
| Impact                              | Nominal Value  | Unit              | Test Method |
| Notched Izod Impact (23°C, 3.18 mm) | 190  | J/m               | ASTM D256   |
| Unnotched Izod Impact (3.81 mm)     | 1000   | J/m               | ASTM D256   |
| Thermal                             | Nominal Value  | Unit              | Test Method |
| Deflection Temperature Under Load   |  |                   | ASTM D648   |
| 0.45 MPa, not annealed              | 252  | °C                | ASTM D648   |
| 1.8 MPa, not annealed               | 220  | °C                | ASTM D648   |

|                        |                 |          |             |
|------------------------|-----------------|----------|-------------|
| CLTE - Flow            | 4.0E-5          | cm/cm/°C | ASTM D696   |
| Electrical             | Nominal Value   | Unit     | Test Method |
| Surface Resistivity    | 1.0E+4 - 1.0E+6 | ohms     | ASTM D257   |
| Volume Resistivity     | 1.0E+4 - 1.0E+6 | ohms·cm  | ASTM D257   |
| Injection              | Nominal Value   | Unit     |             |
| Drying Temperature     | 82.2            | °C       |             |
| Drying Time            | 2.0 - 4.0       | hr       |             |
| Suggested Max Moisture | 0.10            | %        |             |
| Rear Temperature       | 266 - 277       | °C       |             |
| Middle Temperature     | 277 - 288       | °C       |             |
| Front Temperature      | 271 - 282       | °C       |             |
| Nozzle Temperature     | 271 - 282       | °C       |             |
| Processing (Melt) Temp | 277 - 288       | °C       |             |
| Mold Temperature       | 79.4 - 104      | °C       |             |
| Injection Rate         | Slow-Moderate   |          |             |
| Back Pressure          | 0.00 - 0.345    | MPa      |             |
| Injection instructions |                 |          |             |

Screw Speed: Medium Recommendations for Molding and Tool Conditions: Well vented mold Moisture Content, as received: Product is packaged at 0.2% or less.

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