# Electrafil® J-1/CF/30/TF/13/SI/2

## Techmer Polymer Modifiers - *Polyamide 66*

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Filler / Reinforcement | • Carbon Fiber, 30% Filler by Weight | | |
| Additive | • PTFE Lubricant: 13% | • Silicone Lubricant: 2% | |
| Features | • Lubricated | | |
| Uses | • Automotive Electronics<br>• Bushings | • Business Equipment<br>• Conveyor Parts | • Packaging |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Natural Color | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

## Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.36 | | ASTM D792 |
| Molding Shrinkage - Flow (0.125 in) | 1.0E-3 | in/in | ASTM D955 |
| Water Absorption (24 hr) | 0.60 | % | ASTM D570 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength (73°F) | 28000 | psi | ASTM D638 |
| Tensile Elongation (Break, 73°F) | 2.5 | % | ASTM D638 |
| Flexural Modulus (73°F) | 2.20E+6 | psi | ASTM D790 |
| Flexural Strength (73°F) | 40000 | psi | ASTM D790 |
| Compressive Strength | 25000 | psi | ASTM D695 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact (73°F, 0.125 in) | 1.8 | ft·lb/in | ASTM D256 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (66 psi, Unannealed) | 500 | °F | ASTM D648 |
| Deflection Temperature Under Load (264 psi, Unannealed) | 485 | °F | ASTM D648 |
| CLTE - Flow | 8.0E-6 | in/in/°F | ASTM D696 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | 5.5E+2 | ohms | ASTM D257 |
| Volume Resistivity | 5.5 | ohms·cm | ASTM D257 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | HB | | UL 94 |

**Additional Information**

Compressive Strength, ASTM D695, 73°F: 25000 psi
Surface Resistivity, ASTM D257: 1E2-1E3 ohm
Volume Resistivity, ASTM C611: 1-10 ohm-cm

## Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 180 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Suggested Max Moisture | 0.10 | % |
| Rear Temperature | 550 to 570 | °F |
| Middle Temperature | 560 to 580 | °F |
| Front Temperature | 540 to 560 | °F |

| | |
|---|---|
| Nozzle Temperature | 530 to 550 °F |
| Processing (Melt) Temp | 560 to 580 °F |
| Mold Temperature | 175 to 220 °F |
| Injection Rate | Moderate |
| Back Pressure | 50.0 psi |

**Injection Notes**

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