# Electrafil® PSU 1701 3DP

**Techmer Polymer Modifiers - *Polysulfone***

## General Information

| General | |
|---|---|
| Material Status | • Commercial: Active |
| Availability | • North America |
| Features | • Electrically Conductive |
| Appearance | • Natural Color |
| Forms | • Pellets |
| Processing Method | • 3D Printing, Fused Filament Fabrication (FFF) |

## Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.39 | | ASTM D792 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 2.20E+6 | psi | ASTM D638 |
| Tensile Strength (Yield) | 20000 | psi | ASTM D638 |
| Tensile Elongation (Break) | 1.2 | % | ASTM D638 |
| Flexural Modulus | 2.20E+6 | psi | ASTM D790 |
| Flexural Strength | 30000 | psi | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact (73°F, 0.125 in) | 1.2 | ft·lb/in | ASTM D256 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (66 psi, Unannealed) | 369 | °F | ISO 75-2/B |
| Deflection Temperature Under Load (264 psi, Unannealed) | 360 | °F | ISO 75-2/A |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | 2.0 to 5.0 | ohms | ASTM D257 |

## Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 270 | °F |
| Drying Time | 4.0 to 6.0 | hr |
| Suggested Max Moisture | < 0.040 | % |
| Rear Temperature | 540 to 550 | °F |
| Middle Temperature | 580 to 620 | °F |
| Front Temperature | 650 to 680 | °F |
| Nozzle Temperature | 660 to 700 | °F |
| Processing (Melt) Temp | 660 to 690 | °F |

**Injection Notes**

If material is to remain in dryer for more than 6 hours in dried state, reduce dryer temperature to 140°F to prevent degradation of material.