# Electrafil® J-3/CF/30

## Polyamide 6

### Techmer Engineered Solutions

#### Message:

Electrafil®J-3/CF/30 is a polyamide 6 (nylon 6) product, which contains a 30% carbon fiber reinforced material. It can be processed by injection molding and is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. Electrafil®The application fields of J-3/CF/30 include packaging, engineering/industrial accessories, automobile industry, commercial/office supplies and conveyor belts. Features include: flame retardant/rated flame

ROHS certification Conductivity

| General Information                   |  |       |             |  |
|---------------------------------------|--|-------|-------------|--|
| Filler / Reinforcement                | Carbon fiber reinforced material, 30% filler by weight |       |             |  |
| Features                              | Conductivity   |       |             |  |
|                                       | Antistatic property                                    |       |             |  |
|                                       |  |       |             |  |
| Uses                                  | Packaging  |       |             |  |
|                                       | Bushing  |       |             |  |
|                                       | Conveyor accessories                                   |       |             |  |
|                                       | Automotive Electronics                                 |       |             |  |
|                                       | Business equipment                                     |       |             |  |
|                                       |  |       |             |  |
| RoHS Compliance                       | RoHS compliance  |       |             |  |
| Appearance                            | Natural color  |       |             |  |
| Forms                                 | Particle   |       |             |  |
| Processing Method                     | Injection molding                                      |       |             |  |
| Physical                              | Nominal Value  | Unit  | Test Method |  |
| Specific Gravity                      | 1.28   | g/cm³ | ASTM D792   |  |
| Molding Shrinkage - Flow (3.18 mm)    | 0.10   | %     | ASTM D955   |  |
| Water Absorption (24 hr)              | 0.40   | %     | ASTM D570   |  |
| Mechanical                            | Nominal Value  | Unit  | Test Method |  |
| Tensile Modulus (23°C)                | 19300  | MPa   | ASTM D638   |  |
| Tensile Strength (23°C)               | 207  | MPa   | ASTM D638   |  |
| Tensile Elongation (Break, 23°C)      | 3.3  | %     | ASTM D638   |  |
| Flexural Modulus (23°C)               | 17200  | MPa   | ASTM D790   |  |
| Flexural Strength (23°C)              | 317  | MPa   | ASTM D790   |  |
| Impact                                | Nominal Value  | Unit  | Test Method |  |
| Notched Izod Impact (23°C, 3.18 mm)   | 96   | J/m   | ASTM D256   |  |
| Unnotched Izod Impact (23°C, 3.18 mm) | 800  | J/m   | ASTM D256   |  |
| Thermal                               | Nominal Value  | Unit  | Test Method |  |

| Deflection Temperature Under Load   | d (1.8                             |                   |             |
|-------------------------------------|------------------------------------|-------------------|-------------|
| MPa, Unannealed)                    | 213                                | °C                | ASTM D648   |
| CLTE - Flow                         | 1.1E-5                             | cm/cm/°C          | 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 (1.59 mm)              | НВ                                 |                   | UL 94       |
| Additional Information              |                                    |                   |             |
| Surface Resistivity, ASTM D4496: 1E | 2-1E3 ohmsVolume Resistivity, ASTM | C611: 1-10 ohm-cm |             |
| 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: MediumRecommendations for Molding and Tool Conditions: Well vented moldMoisture Content, as received: Product is packaged at 0.2% or less.

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