

## Electrafil® ABS CF10 FR BK

Techmer Polymer Modifiers - *Acrylonitrile Butadiene Styrene*

### General Information

#### General

|                        |                                      |
|------------------------|--------------------------------------|
| Material Status        | • Commercial: Active                 |
| Availability           | • North America                      |
| Filler / Reinforcement | • Carbon Fiber, 10% Filler by Weight |
| Features               | • Flame Retardant                    |
| Appearance             | • Black                              |
| Forms                  | • Pellets                            |
| Processing Method      | • Injection Molding                  |

### Properties <sup>1</sup>

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.26          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 7.0E-4        | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.14          | %        | ASTM D570   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                                | 13000         | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 1.0           | %        | ASTM D638   |
| Flexural Modulus                                        | 1.27E+6       | psi      | ASTM D790   |
| Flexural Strength                                       | 19200         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F, 0.125 in)                    | 0.70          | ft·lb/in | ASTM D256   |
| Unnotched Izod Impact (0.125 in)                        | 3.0           | ft·lb/in | ASTM D4812  |
| Hardness                                                | Nominal Value | Unit     | Test Method |
| Rockwell Hardness (R-Scale)                             | 108           |          | ASTM D785   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 215           | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 210           | °F       | ASTM D648   |
| CLTE - Flow                                             | 1.1E-5        | in/in/°F | ASTM D696   |
| Electrical                                              | Nominal Value | Unit     | Test Method |
| Surface Resistivity                                     | 1.0 to 1.0E+2 | ohms     | ASTM D257   |
| Volume Resistivity                                      | 1.0 to 1.0E+2 | ohms·cm  | ASTM D257   |
| Flammability                                            | Nominal Value | Unit     | Test Method |
| Flame Rating (0.06 in)                                  | V-0           |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 170 to 190    | °F   |
| Drying Time            | 2.0 to 16     | hr   |
| Rear Temperature       | 420 to 450    | °F   |
| Middle Temperature     | 430 to 460    | °F   |
| Front Temperature      | 410 to 430    | °F   |
| Nozzle Temperature     | 390 to 430    | °F   |
| Processing (Melt) Temp | 450 to 500    | °F   |
| Mold Temperature       | 160 to 190    | °F   |

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

