

**ColorFast® PCT4000CL**

Americhem - Thermoplastic Polyester

## General Information

**Product Description**

Amorphous copolyester with excellent appearance, clarity and improved chemical resistance

**General**

|                   |   |  |                    |
|-------------------|---|--|--------------------|
| Material Status   | • Commercial: Active  |  |                    |
| Availability      | • Africa & Middle East<br>• Asia Pacific                                    | • Europe<br>• Latin America                                  | • North America    |
| Features          | • Excellent Colorability  |  |                    |
| Uses              | • Automotive Applications<br>• Consumer Applications<br>• Engineering Parts | • Household Goods<br>• Housings<br>• Industrial Applications | • Industrial Parts |
| Forms             | • Pellets   |  |                    |
| Processing Method | • Injection Molding   |  |                    |

 Properties <sup>1</sup>

| Physical  | Nominal Value    | Unit     | Test Method |
|---|------------------|----------|-------------|
| Density / Specific Gravity  | 1.18             |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (260°C/3.8 kg)                          | 15               | g/10 min | ASTM D1238  |
| Molding Shrinkage - Flow (0.125 in)                               | 5.0E-3 to 8.0E-3 | in/in    | ASTM D955   |
| Mechanical  | Nominal Value    | Unit     | Test Method |
| Tensile Strength <sup>2</sup> (Yield)                             | 6240             | psi      | ASTM D638   |
| Tensile Strength <sup>2</sup> (Break)                             | 7690             | psi      | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Yield)                           | 6.0              | %        | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Break)                           | 210              | %        | ASTM D638   |
| Flexural Modulus <sup>2</sup>                                     | 225000           | psi      | ASTM D790   |
| Flexural Strength <sup>2</sup>                                    | 8990             | psi      | ASTM D790   |
| Impact  | Nominal Value    | Unit     | Test Method |
| Notched Izod Impact (73°F)  | 18               | ft-lb/in | ASTM D256   |
| Hardness  | Nominal Value    | Unit     | Test Method |
| Rockwell Hardness (M-Scale)                                       | 112              |          | ASTM D785   |
| Thermal   | Nominal Value    | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed, 0.126 in) | 185              | °F       | ASTM D648   |
| Flammability  | Nominal Value    | Unit     | Test Method |
| Flame Rating (0.06 in, all color)                                 | HB               |          | UL 94       |

## Processing Information

| Injection              | Nominal Value    | Unit |
|------------------------|------------------|------|
| Drying Temperature     | 190              | °F   |
| Drying Time            | 4.0 to 6.0       | hr   |
| Suggested Shot Size    | 40 to 80         | %    |
| Rear Temperature       | 470 to 510       | °F   |
| Middle Temperature     | 480 to 520       | °F   |
| Front Temperature      | 490 to 530       | °F   |
| Nozzle Temperature     | 490 to 520       | °F   |
| Processing (Melt) Temp | 500 to 540       | °F   |
| Mold Temperature       | 100 to 150       | °F   |
| Back Pressure          | 50.0 to 100      | psi  |
| Screw Speed            | 50 to 80         | rpm  |
| Vent Depth             | 5.0E-4 to 8.0E-4 | in   |

