

## InLube® LCPTF25

Americhem - Liquid Crystal Polymer

### General Information

#### Product Description

25% PTFE LUBRICATED, LIQUID CRYSTAL POLYMER (LCP)

#### General

|                   |                                                             |                                                                                          |                                                                                        |
|-------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Material Status   | • Commercial: Active                                        |                                                                                          |                                                                                        |
| Availability      | • Africa & Middle East<br>• Asia Pacific                    | • Europe<br>• Latin America                                                              | • North America                                                                        |
| Additive          | • PTFE Lubricant: 25%                                       |                                                                                          |                                                                                        |
| Features          | • Chemical Resistant<br>• Good Mold Release                 | • Low Friction<br>• Lubricated                                                           | • Wear Resistant                                                                       |
| Uses              | • Aerospace Applications<br>• Battery Cases<br>• Connectors | • Electrical/Electronic Applications<br>• Engineering Parts<br>• Industrial Applications | • Metal Replacement<br>• Military/Defense Applications<br>• Semiconductor Applications |
| Forms             | • Pellets                                                   |                                                                                          |                                                                                        |
| Processing Method | • Injection Molding                                         |                                                                                          |                                                                                        |

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

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.52          |          | ASTM D792   |
| Molding Shrinkage - Flow                                | 0.0 to 1.0E-3 | in/in    | ASTM D955   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Modulus                                         | 1.40E+6       | psi      | ASTM D638   |
| Tensile Strength                                        | 12600         | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 1.0 to 1.5    | %        | ASTM D638   |
| Flexural Modulus                                        | 1.30E+6       | psi      | ASTM D790   |
| Flexural Strength                                       | 16000         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (0.125 in)                          | 1.4           | ft·lb/in | ASTM D256   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 470           | °F       | ASTM D648   |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 300           | °F   |
| Drying Time            | 6.0 to 8.0    | hr   |
| Suggested Max Moisture | 0.010         | %    |
| Processing (Melt) Temp | 635 to 680    | °F   |
| Mold Temperature       | 200 to 325    | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 40 to 70      | rpm  |

### Notes

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

