

## LONGLITE® LCP 270 N3G

Chang Chun Plastics Co., Ltd. (CCP Group) - *Liquid Crystal Polymer*

### General Information

#### Product Description

LCP-300/ LCP-270 is a high heat-resistance and anisotropic, Type I/ Type II grade Liquid Crystalline Polymer Compound  
LCP-300/LCP-270 appears low viscosity and high fluidity while operating temperature is higher than its melting point.

#### General

|                        |                                               |
|------------------------|-----------------------------------------------|
| Material Status        | • Commercial: Active                          |
| Availability           | • Asia Pacific • Europe • North America       |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight           |
| Features               | • General Purpose • High Flow • Low Viscosity |
| Appearance             | • Natural Color                               |
| Forms                  | • Pellets                                     |
| Processing Method      | • Injection Molding                           |

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

| Physical                                                | Nominal Value | Unit                  | Test Method |
|---------------------------------------------------------|---------------|-----------------------|-------------|
| Density                                                 | 1.61          | g/cm <sup>3</sup>     | ISO 1183    |
| Mechanical                                              | Nominal Value | Unit                  | Test Method |
| Tensile Stress (Yield, 73°F)                            | 21800         | psi                   | ISO 527-2   |
| Tensile Strain (Break, 73°F)                            | 2.0           | %                     | ISO 527-2   |
| Flexural Modulus (73°F)                                 | 2.18E+6       | psi                   | ISO 178     |
| Flexural Stress (73°F)                                  | 31900         | psi                   | ISO 178     |
| Impact                                                  | Nominal Value | Unit                  | Test Method |
| Notched Izod Impact Strength                            | 9.5           | ft·lb/in <sup>2</sup> | ISO 180     |
| Thermal                                                 | Nominal Value | Unit                  | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 518           | °F                    | ISO 75-2/A  |
| Electrical                                              | Nominal Value | Unit                  | Test Method |
| Dielectric Strength (0.0787 in)                         | > 330         | V/mil                 | ASTM D149   |
| Arc Resistance                                          | 150           | sec                   | ASTM D495   |
| Comparative Tracking Index                              | 125           | V                     | IEC 60112   |
| Flammability                                            | Nominal Value | Unit                  | Test Method |
| Flame Rating                                            | V-0           |                       | UL 94       |

### Processing Information

| Injection          | Nominal Value  | Unit |
|--------------------|----------------|------|
| Drying Temperature | 284            | °F   |
| Drying Time        | 4.0            | hr   |
| Rear Temperature   | 572 to 608     | °F   |
| Middle Temperature | 608 to 644     | °F   |
| Front Temperature  | 644 to 680     | °F   |
| Nozzle Temperature | 644 to 680     | °F   |
| Mold Temperature   | 104 to 248     | °F   |
| Injection Pressure | 14200 to 19900 | psi  |
| Holding Pressure   | 4270 to 9960   | psi  |
| Back Pressure      | 116 to 145     | psi  |
| Screw Speed        | 40 to 120      | rpm  |

