

# Lupoy® SC1004A

Polycarbonate

LG Chem Ltd.

## Message:

Description

General Purpose, High Toughness, Chemical resistance, High Impact (at Low Temperature)

Application

Mobile Phone Housing

| General Information                                              |                                    |                   |                |
|------------------------------------------------------------------|------------------------------------|-------------------|----------------|
| UL YellowCard                                                    | E302314-530035                     | E67171-318084     | E248280-533907 |
| Features                                                         | General Purpose                    |                   |                |
|                                                                  | Good Chemical Resistance           |                   |                |
|                                                                  | Low Temperature Impact Resistance  |                   |                |
|                                                                  | Ultra High Toughness               |                   |                |
| Uses                                                             | Cell Phones                        |                   |                |
|                                                                  | Electrical/Electronic Applications |                   |                |
| Processing Method                                                | Injection Molding                  |                   |                |
| Physical                                                         | Nominal Value                      | Unit              | Test Method    |
| Specific Gravity                                                 | 1.20                               | g/cm <sup>3</sup> | ASTM D792      |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)                         | 12                                 | g/10 min          | ASTM D1238     |
| Molding Shrinkage - Flow (3.20 mm)                               | 0.50 to 0.70                       | %                 | ASTM D955      |
| Hardness                                                         | Nominal Value                      | Unit              | Test Method    |
| Rockwell Hardness (R-Scale)                                      | 117                                |                   | ASTM D785      |
| Mechanical                                                       | Nominal Value                      | Unit              | Test Method    |
| Tensile Strength <sup>1</sup> (Yield, 3.20 mm)                   | 55.9                               | MPa               | ASTM D638      |
| Tensile Elongation <sup>2</sup> (Break, 3.20 mm)                 | 130                                | %                 | ASTM D638      |
| Flexural Modulus <sup>3</sup> (3.20 mm)                          | 2060                               | MPa               | ASTM D790      |
| Flexural Strength <sup>4</sup> (Yield, 3.20 mm)                  | 88.3                               | MPa               | ASTM D790      |
| Impact                                                           | Nominal Value                      | Unit              | Test Method    |
| Notched Izod Impact <sup>5</sup>                                 |                                    |                   | ASTM D256      |
| -30°C                                                            | 55                                 | J/m               |                |
| 23°C                                                             | 70                                 | J/m               |                |
| Thermal                                                          | Nominal Value                      | Unit              | Test Method    |
| Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm) | 130                                | °C                | ASTM D648      |
| RTI Elec                                                         | 80.0                               | °C                | UL 746         |
| RTI Imp                                                          | 80.0                               | °C                | UL 746         |
| RTI Str                                                          | 80.0                               | °C                | UL 746         |

| Flammability            | Nominal Value | Test Method |
|-------------------------|---------------|-------------|
| Flame Rating (0.700 mm) | HB            | UL 94       |

| Injection                | Nominal Value | Unit |
|--------------------------|---------------|------|
| Drying Temperature       | 100 to 110    | °C   |
| Drying Time              | 3.0 to 5.0    | hr   |
| Minimum Moisture Content | 0.020         | %    |
| Rear Temperature         | 275 to 290    | °C   |
| Middle Temperature       | 285 to 305    | °C   |
| Front Temperature        | 290 to 310    | °C   |
| Nozzle Temperature       | 285 to 305    | °C   |
| Processing (Melt) Temp   | 290 to 310    | °C   |
| Mold Temperature         | 80.0 to 110   | °C   |
| Back Pressure            | 0.981 to 3.92 | MPa  |
| Screw Speed              | 40 to 70      | rpm  |

| NOTE |                    |  |
|------|--------------------|--|
| 1.   | 50 mm/min          |  |
| 2.   | 50 mm/min          |  |
| 3.   | 10 mm/min          |  |
| 4.   | 10 mm/min          |  |
| 5.   | 3.2 mm Notch Depth |  |

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