

# HOPELEX PC-1100

Polycarbonate  
Lotte Chemical Corporation

Message:

Medium viscosity, high impact strength  
High tensile strength, flexural strength, and elastic modulus

| General Information                      |                        |                   |                         |
|------------------------------------------|------------------------|-------------------|-------------------------|
| Features                                 | High Impact Resistance |                   |                         |
|                                          | High Stiffness         |                   |                         |
|                                          | High Tensile Strength  |                   |                         |
|                                          | Medium Viscosity       |                   |                         |
| RoHS Compliance                          | RoHS Compliant         |                   |                         |
| 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) | 10                     | g/10 min          | ASTM D1238              |
| Molding Shrinkage - Flow                 | 0.50 to 0.70           | %                 | ASTM D955               |
| Mechanical                               | Nominal Value          | Unit              | Test Method             |
| Tensile Strength <sup>1</sup> (Yield)    | 61.8                   | MPa               | ASTM D638               |
| Tensile Elongation <sup>2</sup> (Break)  | > 100                  | %                 | ASTM D638               |
| Flexural Modulus <sup>3</sup>            | 2350                   | MPa               | ASTM D790               |
| Flexural Strength <sup>4</sup> (Yield)   | 90.2                   | MPa               | ASTM D790               |
| Impact                                   | Nominal Value          | Unit              | Test Method             |
| Notched Izod Impact (23°C, 3.18 mm)      | 780                    | J/m               | ASTM D256               |
| Thermal                                  | Nominal Value          | Unit              | Test Method             |
| Deflection Temperature Under Load        |                        |                   | ASTM D648               |
| 0.45 MPa, Unannealed                     | 143                    | °C                |                         |
| 1.8 MPa, Unannealed                      | 132                    | °C                |                         |
| Vicat Softening Temperature              | 150                    | °C                | ASTM D1525 <sup>5</sup> |
| Optical                                  | Nominal Value          | Unit              | Test Method             |
| Refractive Index                         | 1.585                  |                   | ASTM D542               |
| Transmittance                            | 89.0                   | %                 | ASTM D1003              |
| Haze                                     | < 0.80                 | %                 | ASTM D1003              |
| Injection                                | Nominal Value          | Unit              |                         |
| Drying Temperature                       | 120                    | °C                |                         |
| Drying Time                              | 4.0                    | hr                |                         |
| Suggested Max Moisture                   | 0.020                  | %                 |                         |
| Suggested Max Regrind                    | 20                     | %                 |                         |

|                        |              |    |
|------------------------|--------------|----|
| Hopper Temperature     | 60.0 to 80.0 | °C |
| Rear Temperature       | 290 to 310   | °C |
| Middle Temperature     | 280 to 300   | °C |
| Front Temperature      | 270 to 290   | °C |
| Nozzle Temperature     | 280 to 300   | °C |
| Processing (Melt) Temp | 290 to 310   | °C |
| Mold Temperature       | 60.0 to 90.0 | °C |

| NOTE |                                    |  |
|------|------------------------------------|--|
| 1.   | 50 mm/min                          |  |
| 2.   | 50 mm/min                          |  |
| 3.   | 10 mm/min                          |  |
| 4.   | 10 mm/min                          |  |
| 5.   | Rate B (120°C/h), Loading 2 (50 N) |  |

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