

# LNP Thermocomp\* Lexan\_SML5750

## Polycarbonate

## SABIC Innovative Plastics Asia Pacific

### Product Description

50% glass bead and filament reinforced. 270F HDT. Will be commercialized as LGB5030N.

### General

|                        |                                                |
|------------------------|------------------------------------------------|
| Filler / Reinforcement | • Glass Bead\Glass Fiber, 50% Filler by Weight |
| Forms                  | • Pellets                                      |
| Processing Method      | • Injection Molding                            |

| Physical         | Nominal Value | Unit              | Test Method |
|------------------|---------------|-------------------|-------------|
| Specific Gravity | 1.63          | g/cm <sup>3</sup> | ASTM D792   |

| Mechanical                       | Nominal Value | Unit | Test Method |
|----------------------------------|---------------|------|-------------|
| Tensile Modulus <sup>2</sup>     | 11000         | MPa  | ASTM D638   |
| Tensile Strength <sup>3</sup>    |               |      | ASTM D638   |
| Yield                            | 124           | MPa  |             |
| Break                            | 145           | MPa  |             |
| Tensile Elongation <sup>3</sup>  |               |      | ASTM D638   |
| Yield                            | 4.9           | %    |             |
| Break                            | 5.0           | %    |             |
| Flexural Modulus                 |               |      | ASTM D790   |
| 50.8 mm Span <sup>4</sup>        | 10800         | MPa  |             |
| 102 mm Span <sup>5</sup>         | 10100         | MPa  |             |
| Flexural Strength                |               |      | ASTM D790   |
| Break, 50.8 mm Span <sup>4</sup> | 179           | MPa  |             |
| Break, 102 mm Span <sup>5</sup>  | 198           | MPa  |             |

| Impact                       | Nominal Value | Unit | Test Method |
|------------------------------|---------------|------|-------------|
| Notched Izod Impact (23°C)   | 96.1          | J/m  | ASTM D256   |
| Unnotched Izod Impact (23°C) | 534           | J/m  | ASTM D256   |

| Thermal                           | Nominal Value | Unit | Test Method |
|-----------------------------------|---------------|------|-------------|
| Deflection Temperature Under Load |               |      | ASTM D648   |
| 0.45 MPa, Unannealed, 3.18 mm     | 138           | °C   |             |
| 1.8 MPa, Unannealed, 3.18 mm      | 132           | °C   |             |

| Flammability      | Nominal Value | Unit | Test Method |
|-------------------|---------------|------|-------------|
| Flame Rating - UL |               |      | UL 94       |
| 1.50 mm           | HB            |      |             |
| 3.00 mm           | V-1           |      |             |

| UL 746   | Nominal Value | Unit | Test Method |
|----------|---------------|------|-------------|
| RTI Str  | 80.0          | °C   | UL 746      |
| RTI Imp  | 80.0          | °C   | UL 746      |
| RTI Elec | 80.0          | °C   | UL 746      |

| Injection              | Nominal Value  | Unit |
|------------------------|----------------|------|
| Drying Temperature     | 121            | °C   |
| Drying Time            | 3.0 to 4.0     | hr   |
| Drying Time, Maximum   | 48             | hr   |
| Suggested Max Moisture | 0.020          | %    |
| Suggested Shot Size    | 40 to 60       | %    |
| Rear Temperature       | 293 to 316     | °C   |
| Middle Temperature     | 304 to 327     | °C   |
| Front Temperature      | 316 to 338     | °C   |
| Nozzle Temperature     | 310 to 332     | °C   |
| Processing (Melt) Temp | 316 to 338     | °C   |
| Mold Temperature       | 82.2 to 116    | °C   |
| Back Pressure          | 0.345 to 0.689 | MPa  |

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| Injection     | Nominal Value  | Unit               |
|---------------|----------------|--------------------|
| Screw Speed   | 40 to 70       | rpm                |
| Clamp Tonnage | 4.1 to 6.9     | kN/cm <sup>2</sup> |
| Vent Depth    | 0.025 to 0.076 | mm                 |