

# LNP™ LUBRILOY™ D2000P compound

Polycarbonate  
SABIC Innovative Plastics

Message:

LNP LUBRILOY\* D2000P is a compound based on Polycarbonate resin containing Proprietary Lubricant. Added features of this material include:  
Exceptional Processing.  
Also known as: LNP\* LUBRILOY\* Compound D-EP  
Product reorder name: D2000P

| General Information               |                   |                   |                     |
|-----------------------------------|-------------------|-------------------|---------------------|
| UL YellowCard                     | E207780-101283839 |                   |                     |
| Additive                          | Lubricant         |                   |                     |
| Features                          | Workability, good |                   |                     |
|                                   | Lubrication       |                   |                     |
| Processing Method                 | Injection molding |                   |                     |
| Physical                          | Nominal Value     | Unit              | Test Method         |
| Specific Gravity                  | 1.17              | g/cm <sup>3</sup> | ASTM D792, ISO 1183 |
| Molding Shrinkage                 |                   |                   |                     |
| Flow: 24 hours                    | 0.80              | %                 | ASTM D955           |
| Transverse flow: 24 hours         | 0.80              | %                 | ASTM D955           |
| Vertical flow direction: 24 hours | 0.81              | %                 | ISO 294-4           |
| Flow direction: 24 hours          | 0.84              | %                 | ISO 294-4           |
| Water Absorption                  |                   |                   |                     |
| 24 hr, 50% RH                     | 0.14              | %                 | ASTM D570           |
| Equilibrium, 23°C, 50% RH         | 0.21              | %                 | ISO 62              |
| Mechanical                        | Nominal Value     | Unit              | Test Method         |
| Tensile Modulus                   |                   |                   |                     |
| -- <sup>1</sup>                   | 1930              | MPa               | ASTM D638           |
| --                                | 2100              | MPa               | ISO 527-2/1         |
| Tensile Strength                  |                   |                   |                     |
| Yield                             | 56.4              | MPa               | ASTM D638           |
| Yield                             | 54.3              | MPa               | ISO 527-2           |
| Fracture                          | 46.4              | MPa               | ASTM D638           |
| Fracture                          | 46.1              | MPa               | ISO 527-2           |
| Tensile Elongation                |                   |                   |                     |
| Yield                             | 5.9               | %                 | ASTM D638           |
| Yield                             | 5.3               | %                 | ISO 527-2           |
| Fracture                          | 42                | %                 | ASTM D638           |
| Fracture                          | 43                | %                 | ISO 527-2           |
| Flexural Modulus                  |                   |                   |                     |

|                                               |               |                                                 |                        |
|-----------------------------------------------|---------------|-------------------------------------------------|------------------------|
| --                                            | 2280          | MPa                                             | ASTM D790              |
| --                                            | 2300          | MPa                                             | ISO 178                |
| Flexural Strength                             |               |                                                 |                        |
| --                                            | 86.7          | MPa                                             | ASTM D790              |
| --                                            | 86.0          | MPa                                             | ISO 178                |
| Coefficient of Friction                       |               |                                                 |                        |
| With self-dynamics                            | 0.19          |                                                 | ASTM D3702 Modified    |
| With Self-Static                              | 0.16          |                                                 | ASTM D3702 Modified    |
| Wear Factor - Washer                          | 44.0          | 10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr | ASTM D3702 Modified    |
| Impact                                        | Nominal Value | Unit                                            | Test Method            |
| Notched Izod Impact                           |               |                                                 |                        |
| 23°C                                          | 450           | J/m                                             | ASTM D256              |
| 23°C <sup>2</sup>                             | 13            | kJ/m <sup>2</sup>                               | ISO 180/1A             |
| Unnotched Izod Impact                         |               |                                                 |                        |
| 23°C                                          | No Break      |                                                 | ASTM D4812             |
| 23°C <sup>3</sup>                             | 140           | kJ/m <sup>2</sup>                               | ISO 180/1U             |
| Instrumented Dart Impact                      |               |                                                 |                        |
| 23°C, Energy at Peak Load                     | 40.3          | J                                               | ASTM D3763             |
| --                                            | 43.3          | J                                               | ISO 6603-2             |
| Thermal                                       | Nominal Value | Unit                                            | Test Method            |
| Deflection Temperature Under Load             |               |                                                 |                        |
| 0.45 MPa, unannealed, 3.20mm                  | 138           | °C                                              | ASTM D648              |
| 1.8 MPa, unannealed, 3.20mm                   | 126           | °C                                              | ASTM D648              |
| 1.8 MPa, unannealed, 64.0mm span <sup>4</sup> | 131           | °C                                              | ISO 75-2/Af            |
| Linear thermal expansion coefficient          |               |                                                 |                        |
| Flow: -40 to 40°C                             | 7.1E-5        | cm/cm/°C                                        | ASTM E831, ISO 11359-2 |
| Lateral: -40 to 40°C                          | 7.3E-5        | cm/cm/°C                                        | ASTM E831, ISO 11359-2 |
| Flammability                                  | Nominal Value |                                                 | Test Method            |
| Flame Rating (1.50 mm, Testing by SABIC)      | HB            |                                                 | UL 94                  |
| Injection                                     | Nominal Value | Unit                                            |                        |
| Drying Temperature                            | 100           | °C                                              |                        |
| Drying Time                                   | 4.0           | hr                                              |                        |
| Suggested Max Moisture                        | 0.020         | %                                               |                        |
| Rear Temperature                              | 293 - 304     | °C                                              |                        |
| Middle Temperature                            | 299 - 310     | °C                                              |                        |
| Front Temperature                             | 304 - 316     | °C                                              |                        |
| Processing (Melt) Temp                        | 304 - 316     | °C                                              |                        |
| Mold Temperature                              | 65.6 - 93.3   | °C                                              |                        |
| Back Pressure                                 | 0.172 - 0.344 | MPa                                             |                        |
| Screw Speed                                   | 30 - 60       | rpm                                             |                        |
| NOTE                                          |               |                                                 |                        |
| 1.                                            | 50 mm/min     |                                                 |                        |

|    |            |
|----|------------|
| 2. | 80*10*4    |
| 3. | 80*10*4    |
| 4. | 80*10*4 mm |

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#### Recommended distributors for this material

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