

# LNP Lubriloy\* D- HI

SABIC Innovative Plastics Europe - Polycarbonate

## General Information

### General

|                   |                      |
|-------------------|----------------------|
| Material Status   | • Commercial: Active |
| Availability      | • Europe             |
| Additive          | • Lubricant          |
| Features          | • Lubricated         |
| RoHS Compliance   | • RoHS Compliant     |
| Forms             | • Pellets            |
| Processing Method | • Injection Molding  |

## ASTM and ISO Properties <sup>1</sup>

| Physical                                   | Nominal Value (English)    | Nominal Value (SI)     | Test Method |
|--------------------------------------------|----------------------------|------------------------|-------------|
| Specific Gravity (Method A)                | 1.17                       | 1.17                   | ASTM D792   |
| Mechanical                                 | Nominal Value (English)    | Nominal Value (SI)     | Test Method |
| Tensile Strength (Yield)                   | 7200 psi                   | 49.6 MPa               | ASTM D638   |
| Tensile Strength (Break)                   | 7900 psi                   | 54.5 MPa               | ASTM D638   |
| Tensile Elongation (Yield)                 | 5.6 %                      | 5.6 %                  | ASTM D638   |
| Tensile Elongation (Break)                 | 130 %                      | 130 %                  | ASTM D638   |
| Flexural Modulus                           | 270000 psi                 | 1860 MPa               | ASTM D790   |
| Flexural Strength                          | 10000 psi                  | 68.9 MPa               | ASTM D790   |
| Coefficient of Friction                    |                            |                        | ASTM D1894  |
| vs. Steel - Dynamic                        | 0.32                       | 0.32                   |             |
| vs. Steel - Static                         | 0.22                       | 0.22                   |             |
| Impact                                     | Nominal Value (English)    | Nominal Value (SI)     | Test Method |
| Notched Izod Impact                        |                            |                        | ASTM D256   |
| 0.125 in (3.18 mm)                         | 14.6 ft-lb/in              | 779 J/m                |             |
| -22 °F (-30 °C)                            | 9.80 ft-lb/in              | 523 J/m                |             |
| Notched Izod Impact Strength               |                            |                        | ISO 180     |
| -40 °F (-40 °C)                            | 20.5 ft-lb/in <sup>2</sup> | 43.1 kJ/m <sup>2</sup> |             |
| Unnotched Izod Impact (0.125 in (3.18 mm)) | 33.0 ft-lb/in              | 1760 J/m               | ASTM D256   |
| Thermal                                    | Nominal Value (English)    | Nominal Value (SI)     | Test Method |
| Deflection Temperature Under Load          |                            |                        | ASTM D648   |
| 264 psi (1.8 MPa), Unannealed              | 248 °F                     | 120 °C                 |             |
| CLTE (Flow)                                | 0.000073 in/in/°F          | 0.00013 cm/cm/°C       | ASTM E831   |
| CLTE (Flow)                                | 0.000045 in/in/°F          | 0.000080 cm/cm/°C      | ISO 11359-2 |
| CLTE (Transverse)                          | 0.000075 in/in/°F          | 0.00014 cm/cm/°C       | ASTM E831   |
| CLTE (Transverse)                          | 0.000047 in/in/°F          | 0.000085 cm/cm/°C      | ISO 11359-2 |

### Additional Properties

The values displayed above as Coef. of Friction and Wear Factor were tested in accordance with SABIC WI-0687.

WEAR FACTOR @ 40 psi, 50 ft/min, SABIC WI-0687: 35 10<sup>-10</sup> in<sup>5</sup>-min/ft-lb-hr

COEFFICIENT OF FRICTION vs. Steel, Dynamic @ 40 psi, 50 ft/min, SABIC WI-0687: 0.32

COEFFICIENT OF FRICTION vs. Steel, Static @ 40 psi, 50 ft/min, SABIC WI-0687: 0.22

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| Processing Information |                         |                    |
|------------------------|-------------------------|--------------------|
| Injection              | Nominal Value (English) | Nominal Value (SI) |
| Drying Temperature     | 180 to 200 °F           | 82.2 to 93.3 °C    |
| Drying Time            | 4.0 hr                  | 4.0 hr             |
| Suggested Max Moisture | 0.020 %                 | 0.020 %            |
| Processing (Melt) Temp | 530 to 570 °F           | 277 to 299 °C      |
| Mold Temperature       | 150 to 200 °F           | 65.6 to 93.3 °C    |
| Back Pressure          | 25.0 to 50.0 psi        | 0.172 to 0.345 MPa |

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.