

# LNP™ LUBRICOMP™ WL001RZ compound

Polybutylene Terephthalate

SABIC Innovative Plastics

## Message:

LNP LUBRICOMP WL001RZ is a compound based on PBT containing Proprietary Filler(s). Added feature of this grade is: Wear Resistant.

Also known as: LNP\* LUBRICOMP\* Compound WL001RZ

Product reorder name: WL001RZ

| General Information       |                      |                   |             |
|---------------------------|----------------------|-------------------|-------------|
| Filler / Reinforcement    | Proprietary          |                   |             |
| Features                  | Good Wear Resistance |                   |             |
| Processing Method         | Injection Molding    |                   |             |
| Physical                  | Nominal Value        | Unit              | Test Method |
| Specific Gravity          |                      |                   | ASTM D792   |
| --                        | 1.34                 | g/cm <sup>3</sup> |             |
| --                        | 1.33                 | g/cm <sup>3</sup> |             |
| Molding Shrinkage         |                      |                   | ASTM D955   |
| Flow : 24 hr              | 2.0 to 4.0           | %                 |             |
| Across Flow : 24 hr       | 2.0 to 4.0           | %                 |             |
| Water Absorption          |                      |                   |             |
| 24 hr, 50% RH             | 0.070                | %                 | ASTM D570   |
| Equilibrium, 23°C, 50% RH | 0.13                 | %                 | ISO 62      |
| Mechanical                | Nominal Value        | Unit              | Test Method |
| Tensile Modulus           |                      |                   |             |
| -- <sup>1</sup>           | 2690                 | MPa               | ASTM D638   |
| --                        | 2660                 | MPa               | ISO 527-2/1 |
| Tensile Stress            |                      |                   |             |
| Yield                     | 53.0                 | MPa               | ISO 527-2/5 |
| Break <sup>2</sup>        | 54.0                 | MPa               | ASTM D638   |
| Break                     | 52.0                 | MPa               | ISO 527-2/5 |
| Tensile Strain            |                      |                   |             |
| Yield                     | 10                   | %                 | ISO 527-2/5 |
| Break <sup>3</sup>        | 9.0                  | %                 | ASTM D638   |
| Break                     | 15                   | %                 | ISO 527-2/5 |
| Flexural Modulus          |                      |                   |             |
| 50.0 mm Span <sup>4</sup> | 2570                 | MPa               | ASTM D790   |
| -- <sup>5</sup>           | 2450                 | MPa               | ISO 178     |
| Flexural Stress           | 82.0                 | MPa               | ISO 178     |
| Impact                    | Nominal Value        | Unit              | Test Method |
| Notched Izod Impact       |                      |                   |             |
| 23°C                      | 43                   | J/m               | ASTM D256   |

|                                                 |                    |                   |             |
|-------------------------------------------------|--------------------|-------------------|-------------|
| 23°C <sup>6</sup>                               | 4.6                | kJ/m <sup>2</sup> | ISO 180/1A  |
| Unnotched Izod Impact                           |                    |                   |             |
| 23°C                                            | 840                | J/m               | ASTM D4812  |
| 23°C <sup>7</sup>                               | 52                 | kJ/m <sup>2</sup> | ISO 180/1U  |
| Instrumented Dart Impact                        |                    |                   |             |
| 23°C, Total Energy                              | 3.90               | J                 | ASTM D3763  |
| --                                              | 1.04               | J                 | ISO 6603-2  |
| Thermal                                         | Nominal Value      | Unit              | Test Method |
| Deflection Temperature Under Load               |                    |                   |             |
| 0.45 MPa, Unannealed, 3.20 mm                   | 183                | °C                | ASTM D648   |
| 0.45 MPa, Unannealed, 64.0 mm Span <sup>8</sup> | 143                | °C                | ISO 75-2/Bf |
| 1.8 MPa, Unannealed, 3.20 mm                    | 65.0               | °C                | ASTM D648   |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>9</sup>  | 55.0               | °C                | ISO 75-2/Af |
| CLTE                                            |                    |                   | ASTM D696   |
| Flow : -30 to 30°C                              | 8.1E-5             | cm/cm/°C          |             |
| Transverse : -30 to 30°C                        | 8.7E-5             | cm/cm/°C          |             |
| Injection                                       | Nominal Value      | Unit              |             |
| Drying Temperature                              | 121                | °C                |             |
| Drying Time                                     | 4.0                | hr                |             |
| Suggested Max Moisture                          | 0.050              | %                 |             |
| Rear Temperature                                | 221 to 232         | °C                |             |
| Middle Temperature                              | 243 to 254         | °C                |             |
| Front Temperature                               | 260 to 271         | °C                |             |
| Processing (Melt) Temp                          | 238 to 266         | °C                |             |
| Mold Temperature                                | 82.2 to 98.9       | °C                |             |
| Back Pressure                                   | 0.172 to 0.344     | MPa               |             |
| Screw Speed                                     | 30 to 60           | rpm               |             |
| NOTE                                            |                    |                   |             |
| 1.                                              | 5.0 mm/min         |                   |             |
| 2.                                              | Type I, 5.0 mm/min |                   |             |
| 3.                                              | Type I, 5.0 mm/min |                   |             |
| 4.                                              | 1.3 mm/min         |                   |             |
| 5.                                              | 2.0 mm/min         |                   |             |
| 6.                                              | 80*10*4            |                   |             |
| 7.                                              | 80*10*4            |                   |             |
| 8.                                              | 80*10*4 mm         |                   |             |
| 9.                                              | 80*10*4 mm         |                   |             |

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