

# LNP™ LUBRICOMP™ RX06480 compound

Polyamide 66

SABIC Innovative Plastics

## Message:

LNP LUBRICOMP\* RX06480 is a compound based on Nylon 66 resin containing 30% Glass Fiber, 15% Lubricants. Added feature of this material is: Wear Resistant.

Also known as: LNP\* LUBRICOMP\* Compound RFL-4736

Product reorder name: RX06480

| General Information       |                                  |                   |             |
|---------------------------|----------------------------------|-------------------|-------------|
| Filler / Reinforcement    | Glass Fiber,30% Filler by Weight |                   |             |
| Additive                  | Lubricant (15%)                  |                   |             |
| Features                  | Good Wear Resistance             |                   |             |
|                           | Lubricated                       |                   |             |
| Processing Method         | Injection Molding                |                   |             |
| Physical                  | Nominal Value                    | Unit              | Test Method |
| Specific Gravity          |                                  |                   |             |
| --                        | 1.50                             | g/cm <sup>3</sup> | ASTM D792   |
| --                        | 1.49                             | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage         |                                  |                   | ASTM D955   |
| Flow : 24 hr              | 0.40 to 0.60                     | %                 |             |
| Across Flow : 24 hr       | 0.70 to 0.90                     | %                 |             |
| Water Absorption          |                                  |                   |             |
| 24 hr, 50% RH             | 0.50                             | %                 | ASTM D570   |
| Equilibrium, 23°C, 50% RH | 0.74                             | %                 | ISO 62      |
| Mechanical                | Nominal Value                    | Unit              | Test Method |
| Tensile Modulus           |                                  |                   |             |
| -- <sup>1</sup>           | 12100                            | MPa               | ASTM D638   |
| --                        | 11200                            | MPa               | ISO 527-2/1 |
| Tensile Strength          |                                  |                   |             |
| Yield <sup>2</sup>        | 163                              | MPa               | ASTM D638   |
| Yield                     | 162                              | MPa               | ISO 527-2/5 |
| Break <sup>3</sup>        | 163                              | MPa               | ASTM D638   |
| Break                     | 162                              | MPa               | ISO 527-2/5 |
| Tensile Elongation        |                                  |                   |             |
| Yield <sup>4</sup>        | 2.2                              | %                 | ASTM D638   |
| Yield                     | 2.2                              | %                 | ISO 527-2/5 |
| Break <sup>5</sup>        | 2.2                              | %                 | ASTM D638   |
| Break                     | 2.2                              | %                 | ISO 527-2/5 |
| Flexural Modulus          |                                  |                   |             |

|                                                  |                |                                                 |                     |
|--------------------------------------------------|----------------|-------------------------------------------------|---------------------|
| 50.0 mm Span <sup>6</sup>                        | 9820           | MPa                                             | ASTM D790           |
| -- <sup>7</sup>                                  | 9910           | MPa                                             | ISO 178             |
| Flexural Stress                                  |                |                                                 |                     |
| --                                               | 230            | MPa                                             | ISO 178             |
| Yield, 50.0 mm Span <sup>8</sup>                 | 229            | MPa                                             | ASTM D790           |
| Break, 50.0 mm Span <sup>9</sup>                 | 229            | MPa                                             | ASTM D790           |
| Coefficient of Friction                          |                |                                                 | ASTM D3702 Modified |
| vs. Itself - Dynamic                             | 0.56           |                                                 |                     |
| vs. Itself - Static                              | 0.44           |                                                 |                     |
| Wear Factor                                      |                |                                                 | ASTM D3702 Modified |
| Ring                                             | 2.35           | 10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr |                     |
| Washer                                           | 24.0           | 10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr |                     |
| Impact                                           | Nominal Value  | Unit                                            | Test Method         |
| Notched Izod Impact                              |                |                                                 |                     |
| 23°C                                             | 94             | J/m                                             | ASTM D256           |
| 23°C <sup>10</sup>                               | 9.0            | kJ/m <sup>2</sup>                               | ISO 180/1A          |
| Unnotched Izod Impact                            |                |                                                 |                     |
| 23°C                                             | 750            | J/m                                             | ASTM D4812          |
| 23°C <sup>11</sup>                               | 47             | kJ/m <sup>2</sup>                               | ISO 180/1U          |
| Instrumented Dart Impact                         |                |                                                 |                     |
| 23°C, Total Energy                               | 10.5           | J                                               | ASTM D3763          |
| --                                               | 3.50           | J                                               | ISO 6603-2          |
| Thermal                                          | Nominal Value  | Unit                                            | Test Method         |
| Deflection Temperature Under Load                |                |                                                 |                     |
| 0.45 MPa, Unannealed, 3.20 mm                    | 260            | °C                                              | ASTM D648           |
| 0.45 MPa, Unannealed, 64.0 mm Span <sup>12</sup> | 260            | °C                                              | ISO 75-2/Bf         |
| 1.8 MPa, Unannealed, 3.20 mm                     | 252            | °C                                              | ASTM D648           |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>13</sup>  | 247            | °C                                              | ISO 75-2/Af         |
| CLTE                                             |                |                                                 | ASTM D696           |
| Flow : -30 to 30°C                               | 2.7E-5         | cm/cm/°C                                        |                     |
| Transverse : -30 to 30°C                         | 5.8E-5         | cm/cm/°C                                        |                     |
| Injection                                        | Nominal Value  | Unit                                            |                     |
| Drying Temperature                               | 82.2           | °C                                              |                     |
| Drying Time                                      | 4.0            | hr                                              |                     |
| Suggested Max Moisture                           | 0.15 to 0.25   | %                                               |                     |
| Rear Temperature                                 | 266 to 277     | °C                                              |                     |
| Middle Temperature                               | 282 to 293     | °C                                              |                     |
| Front Temperature                                | 293 to 304     | °C                                              |                     |
| Processing (Melt) Temp                           | 282 to 304     | °C                                              |                     |
| Mold Temperature                                 | 93.3 to 110    | °C                                              |                     |
| Back Pressure                                    | 0.172 to 0.344 | MPa                                             |                     |
| Screw Speed                                      | 30 to 60       | rpm                                             |                     |

| NOTE |                    |
|------|--------------------|
| 1.   | 50 mm/min          |
| 2.   | Type I, 5.0 mm/min |
| 3.   | Type I, 5.0 mm/min |
| 4.   | Type I, 5.0 mm/min |
| 5.   | Type I, 5.0 mm/min |
| 6.   | 1.3 mm/min         |
| 7.   | 2.0 mm/min         |
| 8.   | 1.3 mm/min         |
| 9.   | 1.3 mm/min         |
| 10.  | 80*10*4            |
| 11.  | 80*10*4            |
| 12.  | 80*10*4 mm         |
| 13.  | 80*10*4 mm         |

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

