

# LNP™ LUBRICOMP™ RCL36 compound

Polyamide 66  
SABIC Innovative Plastics

Message:

LNP LUBRICOMP RCL36 is a compound based on Nylon 66 resin containing 15% PTFE, 30% Carbon Fiber. Added features of this material include: Wesr Resistant, Electrically Conductive.

Also known as: LNP\* LUBRICOMP\* Compound RCL-4036

Product reorder name: RCL36

| General Information              |                                   |                   |                     |
|----------------------------------|-----------------------------------|-------------------|---------------------|
| UL YellowCard                    | E121562-101282585                 |                   |                     |
| Filler / Reinforcement           | Carbon Fiber,30% Filler by Weight |                   |                     |
| Additive                         | PTFE Lubricant (15%)              |                   |                     |
| Features                         | Electrically Conductive           |                   |                     |
|                                  | Good Wear Resistance              |                   |                     |
|                                  | Lubricated                        |                   |                     |
| Processing Method                | Injection Molding                 |                   |                     |
| Physical                         | Nominal Value                     | Unit              | Test Method         |
| Specific Gravity                 | 1.38                              | g/cm <sup>3</sup> | ASTM D792, ISO 1183 |
| Molding Shrinkage                |                                   |                   |                     |
| Flow : 24 hr                     | 0.10                              | %                 | ASTM D955           |
| Across Flow : 24 hr              | 0.70                              | %                 | ASTM D955           |
| Across Flow : 24 hr              | 0.72                              | %                 | ISO 294-4           |
| Flow : 24 hr                     | 0.11                              | %                 | ISO 294-4           |
| Water Absorption (24 hr, 50% RH) | 0.50                              | %                 | ASTM D570           |
| Mechanical                       | Nominal Value                     | Unit              | Test Method         |
| Tensile Modulus                  |                                   |                   |                     |
| -- <sup>1</sup>                  | 32400                             | MPa               | ASTM D638           |
| --                               | 22600                             | MPa               | ISO 527-2/1         |
| Tensile Strength                 |                                   |                   |                     |
| Break                            | 182                               | MPa               | ASTM D638           |
| Break                            | 245                               | MPa               | ISO 527-2           |
| Tensile Elongation               |                                   |                   |                     |
| Break                            | 0.90                              | %                 | ASTM D638           |
| Break                            | 1.8                               | %                 | ISO 527-2           |
| Flexural Modulus                 |                                   |                   |                     |
| --                               | 18400                             | MPa               | ASTM D790           |
| --                               | 22700                             | MPa               | ISO 178             |
| Flexural Strength                |                                   |                   |                     |
| --                               | 372                               | MPa               | ASTM D790           |

| --                                             | 396            | MPa                                             | ISO 178             |
|------------------------------------------------|----------------|-------------------------------------------------|---------------------|
| Coefficient of Friction                        |                |                                                 | ASTM D3702 Modified |
| vs. Itself - Dynamic                           | 0.36           |                                                 |                     |
| vs. Itself - Static                            | 0.30           |                                                 |                     |
| Wear Factor - Washer                           | 15.0           | 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                                           | 100            | J/m                                             | ASTM D256           |
| 23°C <sup>2</sup>                              | 11             | kJ/m <sup>2</sup>                               | ISO 180/1A          |
| Unnotched Izod Impact                          |                |                                                 |                     |
| 23°C                                           | 1100           | J/m                                             | ASTM D4812          |
| 23°C <sup>3</sup>                              | 69             | kJ/m <sup>2</sup>                               | ISO 180/1U          |
| Instrumented Dart Impact                       |                |                                                 |                     |
| 23°C, Energy at Peak Load                      | 10.0           | J                                               | ASTM D3763          |
| --                                             | 4.00           | J                                               | ISO 6603-2          |
| Thermal                                        | Nominal Value  | Unit                                            | Test Method         |
| Deflection Temperature Under Load              |                |                                                 |                     |
| 1.8 MPa, Unannealed, 3.20 mm                   | 255            | °C                                              | ASTM D648           |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>4</sup> | > 240          | °C                                              | ISO 75-2/Af         |
| 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.                                             | 80*10*4        |                                                 |                     |
| 3.                                             | 80*10*4        |                                                 |                     |
| 4.                                             | 80*10*4 mm     |                                                 |                     |

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