

# LNP™ LUBRICOMP™ DFP32 compound

Polycarbonate

SABIC Innovative Plastics

## Message:

LNP LUBRICOMP DFP32 is a compound based on Polycarbonate resin containing 10% Glass Fiber, 15% PTFE/Silicone. Added feature of this material is: Wear Resistant.

Also known as: LNP\* LUBRICOMP\* Compound DFL-4532

Product reorder name: DFP32

| General Information              |                                  |                   |             |
|----------------------------------|----------------------------------|-------------------|-------------|
| Filler / Reinforcement           | Glass Fiber,10% Filler by Weight |                   |             |
| Additive                         | PTFE + Silicone Lubricant (15%)  |                   |             |
| Features                         | Good Wear Resistance             |                   |             |
|                                  | Lubricated                       |                   |             |
| Processing Method                | Injection Molding                |                   |             |
| Physical                         | Nominal Value                    | Unit              | Test Method |
| Specific Gravity                 |                                  |                   | ASTM D792   |
| --                               | 1.35                             | g/cm <sup>3</sup> |             |
| --                               | 1.34                             | g/cm <sup>3</sup> |             |
| Molding Shrinkage                |                                  |                   | ASTM D955   |
| Flow : 24 hr                     | 0.50 to 0.70                     | %                 |             |
| Across Flow : 24 hr              | 0.60 to 0.80                     | %                 |             |
| Mechanical                       | Nominal Value                    | Unit              | Test Method |
| Tensile Modulus                  |                                  |                   |             |
| -- <sup>1</sup>                  | 4180                             | MPa               | ASTM D638   |
| --                               | 4170                             | MPa               | ISO 527-2/1 |
| Tensile Strength                 |                                  |                   |             |
| Yield <sup>2</sup>               | 74.0                             | MPa               | ASTM D638   |
| Break <sup>3</sup>               | 73.0                             | MPa               | ASTM D638   |
| Break                            | 71.0                             | MPa               | ISO 527-2/5 |
| Tensile Elongation               |                                  |                   |             |
| Yield <sup>4</sup>               | 3.3                              | %                 | ASTM D638   |
| Break <sup>5</sup>               | 3.6                              | %                 | ASTM D638   |
| Break                            | 3.4                              | %                 | ISO 527-2/5 |
| Flexural Modulus                 |                                  |                   |             |
| 50.0 mm Span <sup>6</sup>        | 4010                             | MPa               | ASTM D790   |
| -- <sup>7</sup>                  | 4000                             | MPa               | ISO 178     |
| Flexural Stress                  |                                  |                   |             |
| --                               | 121                              | MPa               | ISO 178     |
| Yield, 50.0 mm Span <sup>8</sup> | 126                              | MPa               | ASTM D790   |

| Break, 50.0 mm Span <sup>9</sup>                 | 123                | MPa               | ASTM D790   |
|--------------------------------------------------|--------------------|-------------------|-------------|
| Impact                                           | Nominal Value      | Unit              | Test Method |
| Notched Izod Impact                              |                    |                   |             |
| 23°C                                             | 160                | J/m               | ASTM D256   |
| 23°C <sup>10</sup>                               | 11                 | kJ/m <sup>2</sup> | ISO 180/1A  |
| Unnotched Izod Impact                            |                    |                   |             |
| 23°C                                             | 640                | J/m               | ASTM D4812  |
| 23°C <sup>11</sup>                               | 38                 | kJ/m <sup>2</sup> | ISO 180/1U  |
| Instrumented Dart Impact                         |                    |                   |             |
| 23°C, Total Energy                               | 22.0               | J                 | ASTM D3763  |
| --                                               | 6.90               | J                 | ISO 6603-2  |
| Thermal                                          | Nominal Value      | Unit              | Test Method |
| Deflection Temperature Under Load                |                    |                   |             |
| 0.45 MPa, Unannealed, 3.20 mm                    | 146                | °C                | ASTM D648   |
| 0.45 MPa, Unannealed, 64.0 mm Span <sup>12</sup> | 145                | °C                | ISO 75-2/Bf |
| 1.8 MPa, Unannealed, 3.20 mm                     | 141                | °C                | ASTM D648   |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>13</sup>  | 140                | °C                | ISO 75-2/Af |
| Injection                                        | Nominal Value      | Unit              |             |
| Drying Temperature                               | 121                | °C                |             |
| Drying Time                                      | 4.0                | hr                |             |
| Suggested Max Moisture                           | 0.020              | %                 |             |
| Rear Temperature                                 | 293 to 304         | °C                |             |
| Middle Temperature                               | 310 to 321         | °C                |             |
| Front Temperature                                | 321 to 332         | °C                |             |
| Processing (Melt) Temp                           | 304 to 327         | °C                |             |
| Mold Temperature                                 | 82.2 to 110        | °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.                                               | 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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