

# LNP™ LUBRILOY™ DF2041 compound

Polycarbonate  
SABIC Innovative Plastics

Message:

LNP LUBRILOY\* DF2041 is a compound based on Polycarbonate resin containing Flame Retardant, Proprietary Lubricant, Glass Fiber. Added features of this material include: Flame Retardant.

Also known as: LNP\* LUBRILOY\* Compound DF-20 FR ECO

Product reorder name: DF2041

| General Information               |                                 |       |             |
|-----------------------------------|---------------------------------|-------|-------------|
| UL YellowCard                     | E207780-101345230               |       |             |
| Filler / Reinforcement            | Glass fiber reinforced material |       |             |
| Additive                          | Lubricant                       |       |             |
| Features                          | Lubrication                     |       |             |
|                                   | Flame retardancy                |       |             |
| Processing Method                 | Injection molding               |       |             |
| Physical                          | Nominal Value                   | Unit  | Test Method |
| Specific Gravity                  | 1.33                            | g/cm³ | ASTM D792   |
| Molding Shrinkage                 |                                 |       |             |
| Flow: 24 hours                    | 0.20                            | %     | ASTM D955   |
| Transverse flow: 24 hours         | 0.40                            | %     | ASTM D955   |
| Vertical flow direction: 24 hours | 0.39                            | %     | ISO 294-4   |
| Flow direction: 24 hours          | 0.18                            | %     | ISO 294-4   |
| Water Absorption                  |                                 |       |             |
| 24 hr, 50% RH                     | 0.064                           | %     | ASTM D570   |
| Equilibrium, 23°C, 50% RH         | 0.12                            | %     | ISO 62      |
| Mechanical                        | Nominal Value                   | Unit  | Test Method |
| Tensile Modulus                   |                                 |       |             |
| -- <sup>1</sup>                   | 6680                            | MPa   | ASTM D638   |
| --                                | 6830                            | MPa   | ISO 527-2/1 |
| Tensile Strength                  |                                 |       |             |
| Fracture                          | 101                             | MPa   | ASTM D638   |
| Fracture                          | 100                             | MPa   | ISO 527-2   |
| Tensile Elongation                |                                 |       |             |
| Fracture                          | 2.2                             | %     | ASTM D638   |
| Fracture                          | 2.0                             | %     | ISO 527-2   |
| Flexural Modulus                  |                                 |       |             |
| --                                | 6370                            | MPa   | ASTM D790   |
| --                                | 6270                            | MPa   | ISO 178     |
| Flexural Strength                 |                                 |       |             |

|                                               |                      |                                                 |                     |
|-----------------------------------------------|----------------------|-------------------------------------------------|---------------------|
| --                                            | 153                  | MPa                                             | ASTM D790           |
| --                                            | 149                  | MPa                                             | ISO 178             |
| Coefficient of Friction                       |                      |                                                 | ASTM D3702 Modified |
| With self-dynamics                            | 0.43                 |                                                 | ASTM D3702 Modified |
| With Self-Static                              | 0.36                 |                                                 | ASTM D3702 Modified |
| Wear Factor - Washer                          | 57.0                 | 10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr | ASTM D3702 Modified |
| <b>Impact</b>                                 | <b>Nominal Value</b> | <b>Unit</b>                                     | <b>Test Method</b>  |
| Notched Izod Impact                           |                      |                                                 |                     |
| 23°C                                          | 150                  | J/m                                             | ASTM D256           |
| 23°C <sup>2</sup>                             | 9.9                  | kJ/m <sup>2</sup>                               | ISO 180/1A          |
| Unnotched Izod Impact                         |                      |                                                 |                     |
| 23°C                                          | 600                  | J/m                                             | ASTM D4812          |
| 23°C <sup>3</sup>                             | 37                   | kJ/m <sup>2</sup>                               | ISO 180/1U          |
| Instrumented Dart Impact                      |                      |                                                 |                     |
| 23°C, Energy at Peak Load                     | 11.8                 | J                                               | ASTM D3763          |
| --                                            | 3.19                 | J                                               | ISO 6603-2          |
| <b>Thermal</b>                                | <b>Nominal Value</b> | <b>Unit</b>                                     | <b>Test Method</b>  |
| Deflection Temperature Under Load             |                      |                                                 |                     |
| 1.8 MPa, unannealed, 3.20mm                   | 92.8                 | °C                                              | ASTM D648           |
| 1.8 MPa, unannealed, 64.0mm span <sup>4</sup> | 102                  | °C                                              | ISO 75-2/Af         |
| <b>Injection</b>                              | <b>Nominal Value</b> | <b>Unit</b>                                     |                     |
| Drying Temperature                            | 82.2                 | °C                                              |                     |
| Drying Time                                   | 4.0 - 6.0            | hr                                              |                     |
| Suggested Max Moisture                        | 0.020                | %                                               |                     |
| Rear Temperature                              | 249 - 260            | °C                                              |                     |
| Middle Temperature                            | 254 - 266            | °C                                              |                     |
| Front Temperature                             | 260 - 271            | °C                                              |                     |
| Processing (Melt) Temp                        | 254 - 288            | °C                                              |                     |
| Mold Temperature                              | 37.8 - 65.6          | °C                                              |                     |
| Back Pressure                                 | 0.172 - 0.344        | MPa                                             |                     |
| Screw Speed                                   | 30 - 60              | rpm                                             |                     |
| <b>NOTE</b>                                   |                      |                                                 |                     |
| 1.                                            | 50 mm/min            |                                                 |                     |
| 2.                                            | 80*10*4              |                                                 |                     |
| 3.                                            | 80*10*4              |                                                 |                     |
| 4.                                            | 80*10*4 mm           |                                                 |                     |

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