

# LNP™ LUBRICOMP™ DCL329XZ compound

Polycarbonate

SABIC Innovative Plastics

## Message:

LNP LUBRICOMP\* DCL329XZ is a compound based on Polycarbonate resin containing 10% Carbon Fiber, 15% PTFE. Added features of this material include: Electrically Conductive, Flame Retardant, Wear Resistant.

Also known as: LNP\* LUBRICOMP\* Compound DCL-4032 FR

Product reorder name: DCL329XZ

| General Information       |                                   |       |             |
|---------------------------|-----------------------------------|-------|-------------|
| UL YellowCard             | E121562-101344532                 |       |             |
| Filler / Reinforcement    | Carbon Fiber,10% Filler by Weight |       |             |
| Additive                  | PTFE Lubricant (15%)              |       |             |
| Features                  | Electrically Conductive           |       |             |
|                           | Flame Retardant                   |       |             |
|                           | Good Wear Resistance              |       |             |
|                           | Lubricated                        |       |             |
| Processing Method         | Injection Molding                 |       |             |
| Physical                  | Nominal Value                     | Unit  | Test Method |
| Density                   |                                   |       |             |
| --                        | 1.36                              | g/cm³ | ISO 1183    |
| --                        | 1.37                              | g/cm³ | ASTM D792   |
| Molding Shrinkage         |                                   |       |             |
| Flow : 24 hr              | 0.10 to 0.20                      | %     | ASTM D955   |
| Across Flow : 24 hr       | 0.40 to 0.50                      | %     | ASTM D955   |
| Across Flow : 24 hr       | 0.45 to 0.52                      | %     | ISO 294-4   |
| Flow : 24 hr              | 0.14 to 0.19                      | %     | ISO 294-4   |
| Water Absorption          |                                   |       |             |
| 24 hr, 50% RH             | 0.090                             | %     | ASTM D570   |
| Equilibrium, 23°C, 50% RH | 0.14                              | %     | ISO 62      |
| Mechanical                | Nominal Value                     | Unit  | Test Method |
| Tensile Modulus           |                                   |       |             |
| -- <sup>1</sup>           | 7170                              | MPa   | ASTM D638   |
| --                        | 7300                              | MPa   | ISO 527-2/1 |
| Tensile Strength          |                                   |       |             |
| Break                     | 92.0                              | MPa   | ASTM D638   |
| Break                     | 94.0                              | MPa   | ISO 527-2   |
| Tensile Elongation        |                                   |       |             |
| Break                     | 2.0                               | %     | ASTM D638   |
| Break                     | 1.9                               | %     | ISO 527-2   |

|                                                 |                  |                   |                        |
|-------------------------------------------------|------------------|-------------------|------------------------|
| Flexural Modulus                                |                  |                   |                        |
| --                                              | 6480             | MPa               | ASTM D790              |
| --                                              | 7300             | MPa               | ISO 178                |
| Flexural Strength                               |                  |                   |                        |
| --                                              | 138              | MPa               | ASTM D790              |
| --                                              | 140              | MPa               | ISO 178                |
| Impact                                          | Nominal Value    | Unit              | Test Method            |
| Notched Izod Impact                             |                  |                   |                        |
| 23°C                                            | 69               | J/m               | ASTM D256              |
| 23°C <sup>2</sup>                               | 7.3              | kJ/m <sup>2</sup> | ISO 180/1A             |
| Unnotched Izod Impact                           |                  |                   |                        |
| 23°C                                            | 320              | J/m               | ASTM D4812             |
| 23°C <sup>3</sup>                               | 22               | kJ/m <sup>2</sup> | ISO 180/1U             |
| Instrumented Dart Impact                        |                  |                   |                        |
| 23°C, Energy at Peak Load                       | 15.2             | J                 | ASTM D3763             |
| --                                              | 2.72             | J                 | ISO 6603-2             |
| Thermal                                         | Nominal Value    | Unit              | Test Method            |
| Deflection Temperature Under Load               |                  |                   |                        |
| 0.45 MPa, Unannealed, 3.20 mm                   | 143              | °C                | ASTM D648              |
| 0.45 MPa, Unannealed, 64.0 mm Span <sup>4</sup> | 141              | °C                | ISO 75-2/Bf            |
| 1.8 MPa, Unannealed, 3.20 mm                    | 139              | °C                | ASTM D648              |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>5</sup>  | 138              | °C                | ISO 75-2/Af            |
| CLTE                                            |                  |                   | ASTM E831, ISO 11359-2 |
| Flow : -40 to 40°C                              | 2.4E-5           | cm/cm/°C          |                        |
| Transverse : -40 to 40°C                        | 4.2E-5           | cm/cm/°C          |                        |
| Electrical                                      | Nominal Value    | Unit              | Test Method            |
| Surface Resistivity                             | 1.0E+2 to 1.0E+6 | ohms              | ASTM D257              |
| 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.                                              | 50 mm/min        |                   |                        |
| 2.                                              | 80*10*4          |                   |                        |
| 3.                                              | 80*10*4          |                   |                        |

|    |            |
|----|------------|
| 4. | 80*10*4 mm |
| 5. | 80*10*4 mm |

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#### Recommended distributors for this material

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