# LNP™ LUBRICOMP™ COMPOUND DFL42

DFL-4042

## DESCRIPTION

LNP* LUBRICOMP* DFL42 a compound based on Polycarbonate resin containing 10% Glass Fiber, 20% PTFE. Added feature of this material is: Wear Resistant.

## TYPICAL PROPERTY VALUES

Revision 20191216

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 67 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 5 mm/min | 66 | MPa | ASTM D 638 |
| Tensile Strain, yld, Type I, 5 mm/min | 3.1 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 3.6 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 4410 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 112 | MPa | ASTM D 790 |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 111 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 4090 | MPa | ASTM D 790 |
| Tensile Stress, yield, 5 mm/min | 65 | MPa | ISO 527 |
| Tensile Stress, break, 5 mm/min | 64 | MPa | ISO 527 |
| Tensile Strain, yield, 5 mm/min | 3 | % | ISO 527 |
| Tensile Strain, break, 5 mm/min | 3.5 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 4350 | MPa | ISO 527 |
| Flexural Stress | 108 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 3950 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 555 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 113 | J/m | ASTM D 256 |
| Multiaxial Impact | 3 | J | ISO 6603 |
| Instrumented Impact Total Energy, 23°C | 16 | J | ASTM D 3763 |
| Izod Impact, unnotched 80*10*4 +23°C | 35 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 11 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 143 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 138 | °C | ASTM D 648 |
| CTE, -30°C to 30°C, flow | 3.5E-05 | 1/°C | ASTM D 696 |
| CTE, -30°C to 30°C, xflow | 7.2E-05 | 1/°C | ASTM D 696 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 143 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 137 | °C | ISO 75/Af |
| PHYSICAL | | | |
| Specific Gravity | 1.42 | - | ASTM D 792 |
| Density | 1.42 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.11 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.4 – 0.6 | % | ASTM D 955 |

© 2019 Copyright by SABIC. All rights reserved

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Mold Shrinkage, xflow, 24 hrs | 0.6 – 0.8 | % | ASTM D 955 |
| Wear Factor Washer | 28 | 10^-10 in^5-min/ft-lb-hr | ASTM D 3702 Modified: Manual |
| Dynamic COF | 0.4 | - | ASTM D 3702 Modified: Manual |
| Static COF | 0.5 | - | ASTM D 3702 Modified: Manual |
| Moisture Absorption (23°C / 50% RH) | 0.16 | % | ISO 62 |
| FLAME CHARACTERISTICS (1) | | | |
| UL Yellow Card Link | E121562-101343413 | - | - |
| UL Recognized, 94V-1 Flame Class Rating | ≥3.3 | mm | UL 94 |
| INJECTION MOLDING | | | |
| Drying Temperature | 120 | °C | |
| Drying Time | 4 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 305 – 325 | °C | |
| Front - Zone 3 Temperature | 320 – 330 | °C | |
| Middle - Zone 2 Temperature | 310 – 320 | °C | |
| Rear - Zone 1 Temperature | 295 – 305 | °C | |
| Mold Temperature | 80 – 110 | °C | |
| Back Pressure | 0.2 – 0.3 | MPa | |
| Screw Speed | 30 – 60 | rpm | |

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

## DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2019 Copyright by SABIC. All rights reserved