



## Isoplast® 101 LGF 40 ETP

Lubrizol Advanced Materials, Inc. - Engineering Thermoplastic Polyurethane

Wednesday, November 6, 2019

### General Information

#### Product Description

Type: Isoplast® 101 LGF 40 Natural is an engineering thermoplastic polyurethane resin.

#### General

|                        |                                          |                             |                 |
|------------------------|------------------------------------------|-----------------------------|-----------------|
| Material Status        | • Commercial: Active                     |                             |                 |
| Availability           | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Filler / Reinforcement | • Long Glass Fiber, 40% Filler by Weight |                             |                 |
| Appearance             | • Natural Color                          |                             |                 |
| Forms                  | • Pellets                                |                             |                 |

### ASTM & ISO Properties <sup>1</sup>

| Physical                                              | Nominal Value    | Unit     | Test Method |
|-------------------------------------------------------|------------------|----------|-------------|
| Density / Specific Gravity                            | 1.51             |          | ASTM D792   |
| Molding Shrinkage - Flow                              | 1.0E-3 to 3.0E-3 | in/in    | ASTM D955   |
| Mechanical                                            | Nominal Value    | Unit     | Test Method |
| Tensile Modulus                                       | 1.74E+6          | psi      | ASTM D638   |
| Tensile Strength (Yield)                              | 27000            | psi      | ASTM D638   |
| Tensile Strength (Break)                              | 27000            | psi      | ASTM D638   |
| Tensile Elongation (Yield)                            | 2.0              | %        | ASTM D638   |
| Tensile Elongation (Break)                            | 2.0              | %        | ASTM D638   |
| Flexural Modulus                                      | 1.45E+6          | psi      | ASTM D790   |
| Flexural Strength                                     | 45000            | psi      | ASTM D790   |
| Impact                                                | Nominal Value    | Unit     | Test Method |
| Notched Izod Impact                                   |                  |          | ASTM D256   |
| -40°F, 0.126 in                                       | 8.0              | ft-lb/in |             |
| 73°F, 0.126 in                                        | 8.0              | ft-lb/in |             |
| Instrumented Dart Impact                              |                  |          | ASTM D3763  |
| -20°F                                                 | 150              | in-lb    |             |
| 73°F                                                  | 274              | in-lb    |             |
| Thermal                                               | Nominal Value    | Unit     | Test Method |
| Deflection Temperature Under Load                     |                  |          | ASTM D648   |
| 264 psi, Unannealed                                   | 199              | °F       |             |
| Deflection Temperature Under Load (264 psi, Annealed) | 210              | °F       | ASTM D648   |
| Vicat Softening Temperature                           | 367              | °F       | ASTM D1525  |
| CLTE - Flow                                           | 7.8E-6           | in/in/°F | ASTM D696   |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 176 to 212    | °F   |
| Processing (Melt) Temp | 464 to 500    | °F   |
| Mold Temperature       | 149 to 194    | °F   |

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## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.