

# Complet LGF40-TPU

Engineering Thermoplastic Polyurethane

PlastiComp, Inc.

Message:

Complet®LGF40-TPU is an engineering thermoplastic polyurethane (ETPU) product, which contains 40% long glass fiber as filler. It is available in North America, Europe or Asia Pacific. The main features are: Rohs certification.

| General Information                                     |                                        |       |             |
|---------------------------------------------------------|----------------------------------------|-------|-------------|
| Filler / Reinforcement                                  | Long glass fiber, 40% filler by weight |       |             |
| RoHS Compliance                                         | RoHS compliance                        |       |             |
| Forms                                                   | Particle                               |       |             |
| Physical                                                | Nominal Value                          | Unit  | Test Method |
| Specific Gravity                                        | 1.51                                   | g/cm³ | ASTM D792   |
| Mechanical                                              | Nominal Value                          | Unit  | Test Method |
| Tensile Modulus                                         | 11700                                  | MPa   | ASTM D638   |
| Tensile Strength                                        | 221                                    | MPa   | ASTM D638   |
| Tensile Elongation (Break)                              | 2.0 - 3.0                              | %     | ASTM D638   |
| Flexural Modulus                                        | 9650                                   | MPa   | ASTM D790   |
| Flexural Strength                                       | 317                                    | MPa   | ASTM D790   |
| Impact                                                  | Nominal Value                          | Unit  | Test Method |
| Notched Izod Impact                                     | 570                                    | J/m   | ASTM D256   |
| Unnotched Izod Impact                                   | 1500                                   | J/m   | ASTM D4812  |
| Thermal                                                 | Nominal Value                          | Unit  | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 93.3                                   | °C    | ASTM D648   |
| Injection                                               | Nominal Value                          | Unit  |             |
| Drying Temperature                                      | 87.8                                   | °C    |             |
| Drying Time                                             | 4.0                                    | hr    |             |
| Suggested Max Moisture                                  | 0.020                                  | %     |             |
| Suggested Max Regrind                                   | 5                                      | %     |             |
| Rear Temperature                                        | 204 - 227                              | °C    |             |
| Middle Temperature                                      | 210 - 232                              | °C    |             |
| Front Temperature                                       | 216 - 238                              | °C    |             |
| Nozzle Temperature                                      | 221 - 243                              | °C    |             |
| Processing (Melt) Temp                                  | 216 - 238                              | °C    |             |
| Mold Temperature                                        | 87.8                                   | °C    |             |
| Back Pressure                                           | 0.172 - 0.345                          | MPa   |             |
| Screw Speed                                             | 30 - 50                                | rpm   |             |
| Cushion                                                 | 6.35                                   | mm    |             |
| Screw L/D Ratio                                         | 18.0:1.0 to 20.0:1.0                   |       |             |
| Screw Compression Ratio                                 | 2.0 : 1.0 - 3.0 : 1.0                  |       |             |

#### Injection instructions

Injection speed: 2 in/sec Injection pressure: medium to maximum

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