# Plaslube® PES GF30 TL15

## Polyethersulfone

### **Techmer Engineered Solutions**

#### Message:

Plaslube® PES GF30 TL15 is a Polyethersulfone (PESU) product filled with 30% glass fiber. It can be processed by injection molding and is available in North America.

Characteristics include:

Flame Rated

Lubricated

| General Information                 |                                  |               |             |  |  |
|-------------------------------------|----------------------------------|---------------|-------------|--|--|
| Filler / Reinforcement              | Glass Fiber,30% Filler by Weight |               |             |  |  |
| Additive                            | PTFE Lubricant (15%)             |               |             |  |  |
| Features                            | Lubricated                       |               |             |  |  |
| Appearance                          | Colors Available                 |               |             |  |  |
| Forms                               | Pellets                          |               |             |  |  |
| Processing Method                   | Injection Molding                |               |             |  |  |
| Physical                            | Nominal Value                    | Unit          | Test Method |  |  |
| Specific Gravity                    | 1.70                             | g/cm³         | ASTM D792   |  |  |
| Molding Shrinkage - Flow (3.18 mm)  | 0.15                             | %             | ASTM D955   |  |  |
| Water Absorption (24 hr)            | 0.30                             | %             | ASTM D570   |  |  |
| Mechanical                          | Nominal Value                    | Unit          | Test Method |  |  |
| Tensile Strength (Break)            | 125                              | MPa           | ASTM D638   |  |  |
| Tensile Elongation (Break)          | 4.0                              | %             | ASTM D638   |  |  |
| Flexural Modulus                    | 7580                             | MPa           | ASTM D790   |  |  |
| Flexural Strength                   | 172                              | MPa           | ASTM D790   |  |  |
| Coefficient of Friction             |                                  |               | ASTM D1894  |  |  |
| vs. Steel - Dynamic                 | 0.19                             |               |             |  |  |
| vs. Steel - Static                  | 0.16                             |               |             |  |  |
| Wear Factor                         | 110                              | 10^-8 mm³/N·m | ASTM D3702  |  |  |
| Impact                              | Nominal Value                    | Unit          | Test Method |  |  |
| Notched Izod Impact (23°C, 3.18 mm) | 85                               | J/m           | ASTM D256   |  |  |
| Unnotched Izod Impact (3.18 mm)     | 370                              | J/m           | ASTM D256   |  |  |
| Thermal                             | Nominal Value                    | Unit          | Test Method |  |  |
| Deflection Temperature Under Load   |                                  |               | ASTM D648   |  |  |
| 0.45 MPa, Unannealed                | 216                              | °C            |             |  |  |
| 1.8 MPa, Unannealed                 | 210                              | °C            |             |  |  |
| CLTE - Flow                         | 3.6E-5                           | cm/cm/°C      | ASTM D696   |  |  |
| Electrical                          | Nominal Value                    | Unit          | Test Method |  |  |
| Volume Resistivity                  | 1.0E+16                          | ohms·cm       | ASTM D257   |  |  |
| Dielectric Strength <sup>1</sup>    | 18                               | kV/mm         | ASTM D149   |  |  |

| Flammability           | Nominal Value         | Unit | Test Method |
|------------------------|-----------------------|------|-------------|
| Flame Rating           | V-0                   |      | UL 94       |
| Injection              | Nominal Value         | Unit |             |
| Drying Temperature     | 143                   | °C   |             |
| Drying Time            | 2.0 to 3.0            | hr   |             |
| Rear Temperature       | 343 to 391            | °C   |             |
| Middle Temperature     | 343 to 391            | °C   |             |
| Front Temperature      | 343 to 391            | °C   |             |
| Processing (Melt) Temp | 332 to 388            | °C   |             |
| Mold Temperature       | 138 to 163            | °C   |             |
| Back Pressure          | 0.345 to 0.689        | MPa  |             |
| Screw Speed            | 50 to 100             | rpm  |             |
| NOTE                   |                       |      |             |
| 1.                     | Method A (Short-Time) |      |             |

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#### Recommended distributors for this material

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