

# SUMIKAEXCEL® PES 3601GL30

Polyethersulfone  
Sumitomo Chemical Co., Ltd.

Message:

SUMIKAEXCEL® PES 3601GL30 is a Polyethersulfone (PESU) material filled with 30% glass fiber. It is available in Asia Pacific, Europe, or North America for injection molding.

Important attributes of SUMIKAEXCEL® PES 3601GL30 are:

- Flame Rated
- Chemical Resistant
- Creep Resistant
- Flame Retardant
- Good Dimensional Stability

| General Information         |                                  |                   |             |
|-----------------------------|----------------------------------|-------------------|-------------|
| UL YellowCard               | E54705-100988576                 | E249884-100961989 |             |
| Filler / Reinforcement      | Glass Fiber,30% Filler by Weight |                   |             |
| Features                    | Flame Retardant                  |                   |             |
|                             | Gasoline Resistance              |                   |             |
|                             | Good Chemical Resistance         |                   |             |
|                             | Good Creep Resistance            |                   |             |
|                             | Good Dimensional Stability       |                   |             |
|                             | Good Impact Resistance           |                   |             |
|                             | High ESCR (Stress Crack Resist.) |                   |             |
|                             | High Flow                        |                   |             |
|                             | High Heat Resistance             |                   |             |
|                             | Oil Resistant                    |                   |             |
| Forms                       | Pellets                          |                   |             |
| Processing Method           | Injection Molding                |                   |             |
| Physical                    | Nominal Value                    | Unit              | Test Method |
| Specific Gravity            | 1.60                             | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage           |                                  |                   | ASTM D955   |
| Flow                        | 0.20                             | %                 |             |
| Across Flow                 | 0.40                             | %                 |             |
| Water Absorption (24 hr)    | 0.30                             | %                 | ASTM D570   |
| Hardness                    | Nominal Value                    | Unit              | Test Method |
| Rockwell Hardness (R-Scale) | 134                              |                   | ASTM D785   |
| Mechanical                  | Nominal Value                    | Unit              | Test Method |
| Tensile Strength            | 140                              | MPa               | ASTM D638   |
| Tensile Elongation (Break)  | 3.0                              | %                 | ASTM D638   |
| Flexural Modulus            | 8400                             | MPa               | ASTM D790   |
| Flexural Strength           | 190                              | MPa               | ASTM D790   |

| Impact                                                  | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Notched Izod Impact (6.40 mm)                           | 81            | J/m      | ASTM D256   |
| Unnotched Izod Impact (6.40 mm)                         | 540           | J/m      | ASTM D256   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 216           | °C       | ASTM D648   |
| CLTE                                                    |               |          | ASTM D696   |
| Flow : -50 to 150°C                                     | 2.3E-5        | cm/cm/°C |             |
| Transverse : 50 to 150°C                                | 4.3E-5        | cm/cm/°C |             |
| Electrical                                              | Nominal Value | Unit     | Test Method |
| Volume Resistivity                                      | 1.0E+16       | ohms·cm  | ASTM D257   |
| Arc Resistance                                          | 150           | sec      | ASTM D495   |
| Flammability                                            | Nominal Value | Unit     | Test Method |
| Flame Rating (0.430 mm)                                 | V-0           |          | UL 94       |
| Injection                                               | Nominal Value | Unit     |             |
| Rear Temperature                                        | 310 to 340    | °C       |             |
| Middle Temperature                                      | 340 to 380    | °C       |             |
| Front Temperature                                       | 340 to 380    | °C       |             |
| Nozzle Temperature                                      | 340 to 380    | °C       |             |
| Processing (Melt) Temp                                  | 350 to 360    | °C       |             |
| Mold Temperature                                        | 120 to 160    | °C       |             |
| Injection Pressure                                      | 118 to 157    | MPa      |             |
| Injection Rate                                          | Moderate-Fast |          |             |
| Holding Pressure                                        | 58.4 to 78.4  | MPa      |             |
| Back Pressure                                           | 4.90 to 9.80  | MPa      |             |
| Screw Speed                                             | 30 to 50      | rpm      |             |

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

