

# SUMIPLOY® GS5420

Polyethersulfone  
Sumitomo Chemical Co., Ltd.

Message:

SUMIPLOY® GS5420 is a Polyethersulfone (PESU) material filled with 30% glass\ptfe. It is available in Asia Pacific or North America for injection molding. Important attributes of SUMIPLOY® GS5420 are:  
Flame Rated  
Chemical Resistant  
Creep Resistant  
Flame Retardant  
Good Dimensional Stability

| General Information         |                                  |                   |             |
|-----------------------------|----------------------------------|-------------------|-------------|
| UL YellowCard               | E54705-100988659                 | E249884-100962059 |             |
| Filler / Reinforcement      | Glass\PTFE,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 Heat Resistance             |                   |             |
|                             | High Rigidity                    |                   |             |
|                             | Oil Resistant                    |                   |             |
| Forms                       | Pellets                          |                   |             |
| Processing Method           | Injection Molding                |                   |             |
| Physical                    | Nominal Value                    | Unit              | Test Method |
| Specific Gravity            | 1.58                             | g/cm³             | ASTM D792   |
| Molding Shrinkage           |                                  |                   | ASTM D955   |
| Flow                        | 0.20                             | %                 |             |
| Across Flow                 | 0.36                             | %                 |             |
| Water Absorption (24 hr)    | 0.35                             | %                 | ASTM D570   |
| Hardness                    | Nominal Value                    | Unit              | Test Method |
| Rockwell Hardness (R-Scale) | 123                              |                   | ASTM D785   |
| Mechanical                  | Nominal Value                    | Unit              | Test Method |
| Tensile Strength            | 103                              | MPa               | ASTM D638   |
| Tensile Elongation (Break)  | 5.0                              | %                 | ASTM D638   |
| Flexural Modulus            | 6600                             | MPa               | ASTM D790   |
| Flexural Strength           | 139                              | MPa               | ASTM D790   |
| Impact                      | Nominal Value                    | Unit              | Test Method |

|                                                         |                      |             |                    |
|---------------------------------------------------------|----------------------|-------------|--------------------|
| Notched Izod Impact (6.40 mm)                           | 49                   | J/m         | ASTM D256          |
| Unnotched Izod Impact (6.40 mm)                         | 350                  | J/m         | ASTM D256          |
| <b>Thermal</b>                                          | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 208                  | °C          | ASTM D648          |
| CLTE                                                    |                      |             | ASTM D696          |
| Flow : -50 to 150°C                                     | 2.1E-5               | cm/cm/°C    |                    |
| Transverse : 50 to 150°C                                | 5.5E-5               | cm/cm/°C    |                    |
| <b>Electrical</b>                                       | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Volume Resistivity                                      | 1.0E+16              | ohms·cm     | ASTM D257          |
| Arc Resistance                                          | 95.0                 | sec         | ASTM D495          |
| <b>Flammability</b>                                     | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Flame Rating (0.530 mm)                                 | V-0                  |             | UL 94              |
| <b>Injection</b>                                        | <b>Nominal Value</b> | <b>Unit</b> |                    |
| Processing (Melt) Temp                                  | 360                  | °C          |                    |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### 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

