

## Solvay Specialty Polymers Acudel® 22000 Polyphenylsulfone, Modified (PPSU, Modified)

Category : Polymer , Thermoplastic , Polyphenylsulfone (PPSU)

### Material Notes:

Acudel® 22000 is a modified polyphenylsulfone. It is a high-heat, high-performance resin formulation exhibiting very good hydrolytic stability, excellent resistance to acids and bases and good resistance to stress cracking under a broad range of chemical environments. In addition, Acudel® 22000 resin exhibits robust toughness and improved notch resistance compared to both Udel® polysulfone and Veradel® polyethersulfone, although slightly lower than that of neat Radel® polyphenylsulfone. In general, the performance profile of Acudel® 22000 resin falls between polysulfone and polyphenylsulfone. Features: Acid Resistant; Base Resistant; Flame Retardant; Good Chemical Resistance; Good Thermal Stability; Good Toughness; High ESCR (Stress Crack Resist.); High Heat Resistance; Hydrolytically Stable Uses: Connectors; Fittings; Piping; Plumbing Parts Additional Properties: Water Absorption - ASTM D570 0.90 % Automotive Specifications ASTM D6394 SP0000A21640; ASTM D6394 SP0412 Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Acudel-22000-Polyphenylsulfone-Modified-PPSU-Modified.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Acudel-22000-Polyphenylsulfone-Modified-PPSU-Modified.php)

| Physical Properties         | Metric                                              | English                                             | Comments   |
|-----------------------------|-----------------------------------------------------|-----------------------------------------------------|------------|
| Density                     | 1.28 g/cc                                           | 0.0462 lb/in <sup>3</sup>                           | ASTM D792  |
| Water Absorption            | 0.30 %<br>@Time 86400 sec                           | 0.30 %<br>@Time 24.0 hour                           | ISO 62     |
| Linear Mold Shrinkage, Flow | 0.0070 cm/cm                                        | 0.0070 in/in                                        |            |
| Melt Flow                   | 12 g/10 min<br>@Load 2.16 kg,<br>Temperature 380 °C | 12 g/10 min<br>@Load 4.76 lb,<br>Temperature 716 °F | ASTM D1238 |

| Mechanical Properties   | Metric                | English                   | Comments   |
|-------------------------|-----------------------|---------------------------|------------|
| Tensile Strength        | 77.2 MPa              | 11200 psi                 | ASTM D638  |
| Elongation at Break     | 50 %                  | 50 %                      | ASTM D638  |
| Elongation at Yield     | 6.7 %                 | 6.7 %                     | ASTM D638  |
| Tensile Modulus         | 2.69 GPa              | 390 ksi                   | ASTM D638  |
| Flexural Yield Strength | 108 MPa               | 15700 psi                 | ASTM D790  |
| Flexural Modulus        | 2.76 GPa              | 400 ksi                   | ASTM D790  |
| Izod Impact, Notched    | 1.10 J/cm             | 2.06 ft-lb/in             | ASTM D256  |
| Tensile Impact Strength | 368 kJ/m <sup>2</sup> | 175 ft-lb/in <sup>2</sup> | ASTM D1822 |

| Thermal Properties                          | Metric                        | English                        | Comments            |
|---------------------------------------------|-------------------------------|--------------------------------|---------------------|
| Deflection Temperature at 1.8 MPa (264 psi) | 197 Â°C<br>@Thickness 3.20 mm | 387 Â°F<br>@Thickness 0.126 in | Annealed; ASTM D648 |

| Electrical Properties | Metric                           | English                          | Comments  |
|-----------------------|----------------------------------|----------------------------------|-----------|
| Volume Resistivity    | >= 9.00e+15 ohm-cm               | >= 9.00e+15 ohm-cm               | ASTM D257 |
| Dielectric Constant   | 3.4<br>@Frequency 1.00e+6 Hz     | 3.4<br>@Frequency 1.00e+6 Hz     | ASTM D150 |
| Dielectric Strength   | 19.0 kV/mm<br>@Thickness 3.20 mm | 483 kV/in<br>@Thickness 0.126 in | ASTM D149 |
| Dissipation Factor    | 0.0080<br>@Frequency 1.00e+6 Hz  | 0.0080<br>@Frequency 1.00e+6 Hz  | ASTM D150 |

| Compliance Properties | Metric | English | Comments       |
|-----------------------|--------|---------|----------------|
| NSF                   | Yes    | Yes     | NSF 51; NSF 61 |

| Processing Properties | Metric                    | English                    | Comments |
|-----------------------|---------------------------|----------------------------|----------|
| Melt Temperature      | 360 - 391 Â°C             | 680 - 736 Â°F              |          |
| Mold Temperature      | 138 - 163 Â°C             | 280 - 325 Â°F              |          |
| Drying Temperature    | 177 Â°C<br>@Time 9000 sec | 351 Â°F<br>@Time 2.50 hour |          |

| Descriptive Properties | Value                      | Comments |
|------------------------|----------------------------|----------|
| Agency Ratings         | NSF 51; NSF 61             |          |
| Availability           | Asia Pacific               |          |
|                        | Europe                     |          |
|                        | Latin America              |          |
|                        | North America              |          |
| Color                  | Black; Colors; Light Beige |          |
| Form                   | Pellets                    |          |
| Injection Rate         |                            |          |

| Descriptive Properties  | Fast Value        | Comments |
|-------------------------|-------------------|----------|
| Processing Technique    | Injection Molding |          |
| RoHS Compliance         | RoHS Compliant    |          |
| Screw Compression Ratio | 2.2:1.0           |          |

**Contact Songhan Plastic Technology Co.,Ltd.**

Website : [www.lookpolymers.com](http://www.lookpolymers.com)  
Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)  
Tel : +86 021-51131842  
Mobile : +86 13061808058  
Skype : lookpolymers  
Address : United North Road 215,Fengxian District, Shanghai City,China