

Quantum PPSU

Category : Polymer , Thermoplastic , Polyphenylsulfone (PPSU)

Material Notes:

Information provided by Quantum Advanced Engineering Plastics

Order this product through the following link:

http://www.lookpolymers.com/polymer_Quantum-PPSU.php

| Physical Properties | Metric | English | Comments |
|--------------------------------|-----------|-----------|-----------|
| Specific Gravity | 1.29 g/cc | 1.29 g/cc | ASTM D792 |
| Water Absorption | 0.37 % | 0.37 % | ASTM D570 |
| Water Absorption at Saturation | 1.1 % | 1.1 % | ASTM D570 |

| Mechanical Properties | Metric | English | Comments |
|-----------------------|------------|---------------|-----------|
| Hardness, Rockwell M | 80 | 80 | ASTM D785 |
| Hardness, Rockwell R | 120 | 120 | ASTM D785 |
| Hardness, Shore D | 80 | 80 | ASTM 2240 |
| Tensile Strength | 75.8 MPa | 11000 psi | ASTM D638 |
| Elongation at Break | 60 - 120 % | 60 - 120 % | ASTM D638 |
| Tensile Modulus | 2.34 GPa | 340 ksi | ASTM D638 |
| Flexural Strength | 91.0 MPa | 13200 psi | ASTM D790 |
| Flexural Modulus | 2.41 GPa | 350 ksi | ASTM D790 |
| Compressive Strength | 96.5 MPa | 14000 psi | ASTM D695 |
| Shear Strength | 62.1 MPa | 9000 psi | ASTM D732 |
| Izod Impact, Notched | 6.94 J/cm | 13.0 ft-lb/in | ASTM D256 |

| Thermal Properties | Metric | English | Comments |
|------------------------------------|--|--|------------|
| CTE, linear | 55.8 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ | 31.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ | ASTM D696 |
| Thermal Conductivity | 0.349 W/m-K | 2.42 BTU-in/hr-ft ² -°F | ASTM C177 |
| Melting Point | 218 °C | 424 °F | ASTM D3417 |
| Maximum Service Temperature, Air | 160 °C | 320 °F | |
| Deflection Temperature at 0.46 MPa | 214 °C | 417 °F | |

| <small>(56 psi)</small> Thermal Properties | Metric | English | ASTM D648 Comments |
|--|--------|---------|-----------------------|
| Deflection Temperature at 1.8 MPa (264 psi) | 207 °C | 405 °F | ASTM D648 |
| Flammability, UL94 | V-0 | V-0 | |

| Electrical Properties | Metric | English | Comments |
|-----------------------|--------------------------|--------------------------|-----------|
| Volume Resistivity | 1.00e+16 ohm-cm | 1.00e+16 ohm-cm | ASTM D257 |
| Dielectric Constant | 3.4 | 3.4 | ASTM D150 |
| | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz | |
| Dielectric Strength | 14.6 kV/mm | 370 kV/in | ASTM D149 |
| Dissipation Factor | 0.00020 | 0.00020 | ASTM D150 |
| | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz | |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
| FDA Compliance | yes | |

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China