

## SABIC Innovative Plastics ULTEM 2410 PEI (Asia Pacific)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

### Material Notes:

40% Glass fiber filled, enhanced flow Polyetherimide (Tg 217C). ECO Conforming, UL94 V0 and 5VA listing.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-ULTEM-2410-PEI-Asia-Pacific.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-ULTEM-2410-PEI-Asia-Pacific.php)

| Physical Properties                | Metric                                | English                               | Comments     |
|------------------------------------|---------------------------------------|---------------------------------------|--------------|
| Specific Gravity                   | 1.61 g/cc                             | 1.61 g/cc                             | ASTM D792    |
| Water Absorption                   | 0.13 %                                | 0.13 %                                | ASTM D570    |
|                                    | @Time 86400 sec                       | @Time 24.0 hour                       |              |
| Moisture Absorption at Equilibrium | 0.90 %                                | 0.90 %                                | ASTM D570    |
| Linear Mold Shrinkage, Flow        | 0.0010 - 0.0030 cm/cm                 | 0.0010 - 0.0030 in/in                 | SABIC Method |
|                                    | @Thickness 3.20 mm                    | @Thickness 0.126 in                   |              |
| Melt Flow                          | 5.2 g/10 min                          | 5.2 g/10 min                          | ASTM D1238   |
|                                    | @Load 6.60 kg,<br>Temperature 337 Â°C | @Load 14.6 lb,<br>Temperature 639 Â°F |              |

| Mechanical Properties     | Metric    | English       | Comments                           |
|---------------------------|-----------|---------------|------------------------------------|
| Hardness, Rockwell M      | 114       | 114           | ASTM D785                          |
| Tensile Strength at Break | 179 MPa   | 26000 psi     | Type I, 5 mm/min; ASTM D638        |
| Tensile Strength, Yield   | 186 MPa   | 27000 psi     | Type I, 5 mm/min; ASTM D638        |
| Elongation at Break       | 2.5 %     | 2.5 %         | Type I, 5 mm/min; ASTM D638        |
| Tensile Modulus           | 11.72 GPa | 1700 ksi      | 5 mm/min; ASTM D638                |
| Flexural Strength         | 241 MPa   | 35000 psi     | 2.6 mm/min, 100 mm span; ASTM D790 |
| Flexural Modulus          | 11.72 GPa | 1700 ksi      | 2.6 mm/min, 100 mm span; ASTM D790 |
| Izod Impact, Notched      | 1.12 J/cm | 2.10 ft-lb/in | ASTM D256                          |
| Izod Impact, Unnotched    | 4.27 J/cm | 8.00 ft-lb/in | ASTM D4812                         |

| Thermal Properties            | Metric               | English              | Comments   |
|-------------------------------|----------------------|----------------------|------------|
| CTE, linear, Parallel to Flow | 14.4 Âµm/m-Â°C       | 8.00 Âµin/in-Â°F     | ASTM E 831 |
|                               | @Temperature -20.0 - | @Temperature -4.00 - |            |

| Thermal Properties                          | 150 Â°C<br>Metric             | 302 Â°F<br>English             | Comments              |
|---|-------------------------------|--------------------------------|-----------------------|
| Deflection Temperature at 0.46 MPa (66 psi) | 215 Â°C<br>@Thickness 6.40 mm | 419 Â°F<br>@Thickness 0.252 in | unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 212 Â°C<br>@Thickness 6.40 mm | 414 Â°F<br>@Thickness 0.252 in | unannealed; ASTM D648 |
| Vicat Softening Point                       | 234 Â°C                       | 453 Â°F                        | Rate B/50; ASTM D1525 |
| Glass Transition Temp, Tg                   | 217 Â°C                       | 423 Â°F                        |                       |
| UL RTI, Electrical                          | 170 Â°C                       | 338 Â°F                        | UL 746B               |
| UL RTI, Mechanical with Impact              | 170 Â°C                       | 338 Â°F                        | UL 746B               |
| UL RTI, Mechanical without Impact           | 170 Â°C                       | 338 Â°F                        | UL 746B               |
| Flammability, UL94                          | V-0<br>@Thickness 0.250 mm    | V-0<br>@Thickness 0.00984 in   | UL 94                 |
|   | 5VA<br>@Thickness 1.47 mm     | 5VA<br>@Thickness 0.0579 in    | UL 94                 |
| Oxygen Index                                | 54 %                          | 54 %                           | ASTM D2863            |

| Electrical Properties                | Metric                           | English                           | Comments            |
|--------------------------------------|----------------------------------|-----------------------------------|---------------------|
| Volume Resistivity                   | 1.50e+16 ohm-cm                  | 1.50e+16 ohm-cm                   | ASTM D257           |
| Dielectric Constant                  | 3.7<br>@Frequency 1000 Hz        | 3.7<br>@Frequency 1000 Hz         | ASTM D150           |
| Dielectric Strength                  | 24.0 kV/mm<br>@Thickness 1.60 mm | 610 kV/in<br>@Thickness 0.0630 in | in oil; ASTM D149   |
| Dissipation Factor                   | 0.0020<br>@Frequency 1000 Hz     | 0.0020<br>@Frequency 1000 Hz      | ASTM D150           |
| Arc Resistance                       | 120 - 180 sec                    | 120 - 180 sec                     | Tungsten; ASTM D495 |
| Comparative Tracking Index           | 0.00 - 100 V                     | 0.00 - 100 V                      | UL 746A             |
| Hot Wire Ignition, HWI               | >= 120 sec                       | >= 120 sec                        | UL 746A             |
| High Amp Arc Ignition, HAI           | 0.00 - 15 arcs                   | 0.00 - 15 arcs                    | UL 746A             |
| High Voltage Arc-Tracking Rate, HVTR | >= 150 mm/min                    | >= 5.91 in/min                    | UL 746A             |

| Descriptive Properties               | Value | Comments   |
|--------------------------------------|-------|------------|
| NBS Smoke Density, Flaming, Ds 4 min | 1     | ASTM E 662 |

## Contact Songhan Plastic Technology Co.,Ltd.

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