

## SABIC Innovative Plastics ULTEM PW2300 PEI (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

### Material Notes:

30% Glass fiber filled, standard flow Polyetherimide (Tg 217Å°C). Specific grade-colors are designed and certified for use in Potable Water applications. KTW, WRAS, ACS, NSF-61 and W270 certified. US FDA and European Food Contact approved.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-ULTEM-PW2300-PEI-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-ULTEM-PW2300-PEI-Europe-Africa-Middle-East.php)

| Physical Properties            | Metric                                                | English                                               | Comments                     |
|--------------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------------------|
| Density                        | 1.51 g/cc                                             | 0.0546 lb/inÅ³                                        | ISO 1183                     |
| Moisture Absorption            | 0.500 %                                               | 0.500 %                                               | 23Å°C / 50% RH; ISO 62       |
| Water Absorption at Saturation | 0.90 %                                                | 0.90 %                                                | ISO 62                       |
| Linear Mold Shrinkage, Flow    | 0.0020 - 0.0040 cm/cm                                 | 0.0020 - 0.0040 in/in                                 | on Tensile Bar; SABIC Method |
| Melt Index of Compound         | 6.0 g/10 min<br>@Load 5.00 kg,<br>Temperature 360 Å°C | 6.0 g/10 min<br>@Load 11.0 lb,<br>Temperature 680 Å°F | MVR [cm³/10 min]; ISO 1133   |

| Mechanical Properties        | Metric                                   | English                                      | Comments                           |
|------------------------------|------------------------------------------|----------------------------------------------|------------------------------------|
| Hardness, H358/30            | 165 MPa                                  | 23900 psi                                    | ISO 2039-1                         |
| Tensile Strength at Break    | 165 MPa                                  | 23900 psi                                    | 5 mm/min; ISO 527                  |
| Elongation at Break          | 2.0 %                                    | 2.0 %                                        | 5 mm/min; ISO 527                  |
| Tensile Modulus              | 9.50 GPa                                 | 1380 ksi                                     | 1 mm/min; ISO 527                  |
| Flexural Strength            | 225 MPa                                  | 32600 psi                                    | 2 mm/min; ISO 178                  |
| Flexural Modulus             | 8.50 GPa                                 | 1230 ksi                                     | 2 mm/min; ISO 178                  |
| Izod Impact, Unnotched (ISO) | 40.0 kJ/mÅ²                              | 19.0 ft-lb/inÅ²                              | 80*10*4; ISO 180/1U                |
|                              | 40.0 kJ/mÅ²<br>@Temperature -30.0<br>Å°C | 19.0 ft-lb/inÅ²<br>@Temperature -22.0<br>Å°F | 80*10*4; ISO 180/1U                |
| Charpy Impact Unnotched      | 4.00 J/cmÅ²                              | 19.0 ft-lb/inÅ²                              | Edgew 80*10*4 sp=62mm; ISO 179/1eU |
|                              | 4.00 J/cmÅ²<br>@Temperature -30.0<br>Å°C | 19.0 ft-lb/inÅ²<br>@Temperature -22.0<br>Å°F | Edgew 80*10*4 sp=62mm; ISO 179/1eU |
| Charpy Impact, Notched       | 1.00 J/cmÅ²                              | 4.76 ft-lb/inÅ²                              | ISO 179/2C                         |

| Mechanical Properties          | Metric | English | Comments                  |
|--------------------------------|--------|---------|---------------------------|
| Taber Abrasion, mg/1000 Cycles | 20     | 20      | CS-17, 1 kg; SABIC Method |

| Thermal Properties                          | Metric                                                                                                     | English                                                                                                      | Comments                           |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------|
| CTE, linear, Parallel to Flow               | 20.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$<br>@Temperature 23.0 - 150 $\text{Å}^\circ\text{C}$ | 11.1 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$<br>@Temperature 73.4 - 302 $\text{Å}^\circ\text{F}$ | ISO 11359-2                        |
| CTE, linear, Transverse to Flow             | 60.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$<br>@Temperature 23.0 - 150 $\text{Å}^\circ\text{C}$ | 33.3 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$<br>@Temperature 73.4 - 302 $\text{Å}^\circ\text{F}$ | ISO 11359-2                        |
| Thermal Conductivity                        | 0.290 W/m-K                                                                                                | 2.01 BTU-in/hr-ft $\text{Å}^2$ - $\text{Å}^\circ\text{F}$                                                    | ISO 8302                           |
| Deflection Temperature at 0.46 MPa (66 psi) | 215 $\text{Å}^\circ\text{C}$                                                                               | 419 $\text{Å}^\circ\text{F}$                                                                                 | Edgew 120*10*4 sp=100mm; ISO 75/Be |
| Deflection Temperature at 1.8 MPa (264 psi) | 210 $\text{Å}^\circ\text{C}$                                                                               | 410 $\text{Å}^\circ\text{F}$                                                                                 | Edgew 120*10*4 sp=100mm; ISO 75/Ae |
| Vicat Softening Point                       | 213 $\text{Å}^\circ\text{C}$                                                                               | 415 $\text{Å}^\circ\text{F}$                                                                                 | Rate B/50; ISO 306                 |
|                                             | 220 $\text{Å}^\circ\text{C}$                                                                               | 428 $\text{Å}^\circ\text{F}$                                                                                 | Rate B/120; ISO 306                |
|                                             | 225 $\text{Å}^\circ\text{C}$                                                                               | 437 $\text{Å}^\circ\text{F}$                                                                                 | Rate A/50; ISO 306                 |
| Glass Transition Temp, Tg                   | 217 $\text{Å}^\circ\text{C}$                                                                               | 423 $\text{Å}^\circ\text{F}$                                                                                 |                                    |
| Oxygen Index                                | 48 %                                                                                                       | 48 %                                                                                                         | ISO 4589                           |

| Descriptive Properties                                                          | Value  | Comments       |
|---------------------------------------------------------------------------------|--------|----------------|
| Ball Pressure Test, 125 $\text{Å}^\circ\text{C}$ +/- 2 $\text{Å}^\circ\text{C}$ | PASSES | IEC 60695-10-2 |

## Contact Songhan Plastic Technology Co.,Ltd.

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