

**Product Texts**

Transparent, high flow Polyetherimide (Tg 217C). ECO Conforming. US FDA and EU Food Contact Compliant.

**Processing/Physical Characteristics**

|                            | Value | Unit                   | Test Standard |
|----------------------------|-------|------------------------|---------------|
| <b>ISO Data</b>            |       |                        |               |
| Melt volume-flow rate, MVR | 25    | cm <sup>3</sup> /10min | ISO 1133      |
| Temperature                | 360   | °C                     | -             |
| Load                       | 5     | kg                     | -             |
| <b>ASTM Data</b>           |       |                        |               |
| Melt Flow Index, MFI       | 17.8  | g/10min                | ASTM D 1238   |
| Temperature                | 337   | °C                     | -             |
| Load                       | 6.6   | kg                     | -             |

**Mechanical properties**

|  | Value | Unit              | Test Standard |
|--|-------|-------------------|---------------|
| <b>ISO Data</b>                          |       |                   |               |
| Tensile Modulus                          | 3200  | MPa               | ISO 527       |
| Yield stress                             | 105   | MPa               | ISO 527       |
| Yield strain                             | 6     | %                 | ISO 527       |
| Stress at break                          | 85    | MPa               | ISO 527       |
| Strain at break                          | 50    | %                 | ISO 527       |
| Flexural modulus                         | 3300  | MPa               | ISO 178       |
| Charpy notched impact strength, +23°C    | 3     | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Izod impact strength, +23°C, 4mm         | N     | kJ/m <sup>2</sup> | ISO 180/1U    |
| Izod impact strength, -30°C, 4mm         | N     | kJ/m <sup>2</sup> | ISO 180/1U    |
| Izod notched impact strength, +23°C, 4mm | 5     | kJ/m <sup>2</sup> | ISO 180/1A    |
| Izod notched impact strength, -30°C, 4mm | 5     | kJ/m <sup>2</sup> | ISO 180/1A    |
| Ball indentation hardness                | 140   | MPa               | ISO 2039-1    |
| <b>ASTM Data</b>                         |       |                   |               |
| Tensile Modulus                          | 3590  | MPa               | ASTM D 638    |
| Tensile Strength at Yield                | 110   | MPa               | ASTM D 638    |
| Tensile Strength at Break                | 105   | MPa               | ASTM D 638    |
| Elongation at Yield                      | 7     | %                 | ASTM D 638    |
| Elongation at Break                      | 60    | %                 | ASTM D 638    |
| Flexural Modulus                         | 3550  | MPa               | ASTM D 790    |
| Rockwell Hardness                        | M 109 | -                 | ASTM D 785    |
| Taber Abrasion Resistance                | 10    | mg/1000 cycles    | ASTM D 1044   |
| Izod Impact notched, 1/8 in              | 32    | J/m               | ASTM D 256    |
| Izod Impact notched, Low-Temperature     | 35    | J/m               | ASTM D 256    |
| Temperature                              | -30   | °C                | -             |
| Izod Impact unnotched, 1/8 in            | 1340  | J/m               | ASTM D 256    |

**Thermal properties**

|  | Value  | Unit    | Test Standard  |
|--|--------|---------|----------------|
| <b>ISO Data</b>                          |        |         |                |
| Temp. of deflection under load, 1.80 MPa | 190    | °C      | ISO 75-1/-2    |
| Vicat softening temperature, A           | 215    | °C      | ISO 306        |
| Vicat softening temperature, B           | 211    | °C      | ISO 306        |
| Vicat softening temperature, 120°C/h 50N | 212    | °C      | ISO 306        |
| Thermal Conductivity                     | 0.21   | W/(m K) | DIN 52616      |
| Glow Wire Flammability Index (GWFI)      | 960    | °C      | IEC 60695-2-12 |
| GWFI - thickness tested (3)              | 3.2    | mm      | -              |
| <b>ASTM Data</b>                         |        |         |                |
| DTUL @ 66 psi                            | 205    | °C      | ASTM D 648     |
| DTUL @ 264 psi                           | 197    | °C      | ASTM D 648     |
| Vicat Temperature                        | 218    | °C      | ASTM D 1525    |
| Thermal Conductivity, solid state        | 0.0317 | W/(m K) | ASTM C 177     |

**Electrical properties**

|                             | Value | Unit | Test Standard |
|-----------------------------|-------|------|---------------|
| <b>ISO Data</b>             |       |      |               |
| Relative permittivity, 1MHz | 2.9   | -    | IEC 62631-2-1 |

**ULTEM™ Resin MD131 - Asia**

PEI

Saudi Basic Industries Corporation (SABIC)

|                            |                 |       |               |
|----------------------------|-----------------|-------|---------------|
| Dissipation factor, 1MHz   | <b>60</b>       | E-4   | IEC 62631-2-1 |
| Volume resistivity         | <b>1E13</b>     | Ohm*m | IEC 62631-3-1 |
| Surface resistivity        | <b>&gt;1E15</b> | Ohm   | IEC 62631-3-2 |
| Electric strength          | <b>33</b>       | kV/mm | IEC 60243-1   |
| Comparative tracking index | <b>150</b>      | -     | IEC 60112     |

**ASTM Data**

|                                 |                 |        |            |
|---------------------------------|-----------------|--------|------------|
| Dielectric Strength, Short Time | <b>27.9</b>     | kV/mm  | ASTM D 149 |
| Volume Resistivity              | <b>&gt;1E15</b> | Ohm*cm | ASTM D 257 |

| <b>Other properties</b> | <b>Value</b> | <b>Unit</b>       | <b>Test Standard</b> |
|-------------------------|--------------|-------------------|----------------------|
| Water absorption        | <b>1.25</b>  | %                 | Sim. to ISO 62       |
| Humidity absorption     | <b>0.7</b>   | %                 | Sim. to ISO 62       |
| Density                 | <b>1270</b>  | kg/m <sup>3</sup> | ISO 1183             |
| Density                 | <b>1270</b>  | kg/m <sup>3</sup> | ASTM D 792           |

| <b>Processing Recommendation Injection Molding</b> | <b>Value</b>     | <b>Unit</b> | <b>Test Standard</b> |
|--|------------------|-------------|----------------------|
| Pre-drying - Temperature                           | <b>150</b>       | °C          | -                    |
| Pre-drying - Time                                  | <b>4 - 6</b>     | h           | -                    |
| Processing humidity                                | <b>≤0.02</b>     | %           | -                    |
| Melt temperature                                   | <b>350 - 400</b> | °C          | -                    |
| Mold temperature                                   | <b>135 - 165</b> | °C          | -                    |
| Zone 1   | <b>330 - 400</b> | °C          | -                    |
| Zone 2   | <b>340 - 400</b> | °C          | -                    |
| Zone 3   | <b>345 - 400</b> | °C          | -                    |
| Screw speed  | <b>40 - 70</b>   | rpm         | -                    |
| Back pressure                                      | <b>0.3 - 0.7</b> | MPa         | -                    |

**Characteristics****Processing**

Injection Molding

**Certifications**

Food contact, Food approval FDA 21 CFR

**Special Characteristics**

Transparent

**Regional Availability**

Asia Pacific