

## SABIC Innovative Plastics Lexan® SLX2531T PC Copolymer (Asia Pacific)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Transparent weatherable PC copolymer for blowmolding/extrusion.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-SLX2531T-PC-Copolymer-Asia-Pacific.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-SLX2531T-PC-Copolymer-Asia-Pacific.php)

| Physical Properties            | Metric                                               | English                                              | Comments                                |
|--------------------------------|------------------------------------------------------|------------------------------------------------------|-----------------------------------------|
| Specific Gravity               | 1.20 g/cc                                            | 1.20 g/cc                                            | ASTM D792                               |
| Density                        | 1.20 g/cc                                            | 0.0434 lb/in <sup>3</sup>                            | ISO 1183                                |
| Moisture Absorption            | 0.150 %                                              | 0.150 %                                              | 23°C / 50% RH; ISO 62                   |
| Water Absorption at Saturation | 0.35 %                                               | 0.35 %                                               | ISO 62                                  |
| Linear Mold Shrinkage, Flow    | 0.0060 - 0.0080 cm/cm<br>@Thickness 3.20 mm          | 0.0060 - 0.0080 in/in<br>@Thickness 0.126 in         | SABIC Method                            |
| Melt Flow                      | 3.0 g/10 min<br>@Load 1.20 kg,<br>Temperature 300 °C | 3.0 g/10 min<br>@Load 2.65 lb,<br>Temperature 572 °F | ASTM D1238                              |
| Melt Index of Compound         | 2.0 g/10 min<br>@Load 1.20 kg,<br>Temperature 300 °C | 2.0 g/10 min<br>@Load 2.65 lb,<br>Temperature 572 °F | MVR [cm <sup>3</sup> /10 min]; ISO 1133 |

| Mechanical Properties     | Metric   | English  | Comments                     |
|---------------------------|----------|----------|------------------------------|
| Tensile Strength at Break | 63.0 MPa | 9140 psi | 50 mm/min; ISO 527           |
|                           | 64.0 MPa | 9280 psi | Type I, 50 mm/min; ASTM D638 |
| Tensile Strength, Yield   | 62.0 MPa | 8990 psi | Type I, 50 mm/min; ASTM D638 |
|                           | 63.0 MPa | 9140 psi | 50 mm/min; ISO 527           |
| Elongation at Break       | 98 %     | 98 %     | 50 mm/min; ISO 527           |
|                           | 106 %    | 106 %    | Type I, 50 mm/min; ASTM D638 |
| Elongation at Yield       | 6.0 %    | 6.0 %    | 50 mm/min; ISO 527           |
|                           | 7.5 %    | 7.5 %    | Type I, 50 mm/min; ASTM D638 |
| Tensile Modulus           | 2.35 GPa | 341 ksi  | 1 mm/min; ISO 527            |
|                           | 2.40 GPa | 348 ksi  | 5 mm/min; ASTM D638          |

| Mechanical Properties        | Metric                 | English                    | Comments                           |
|------------------------------|------------------------|----------------------------|------------------------------------|
|                              | 101 MPa                | 14600 psi                  | 1.3 mm/min, 50 mm span; ASTM D790  |
| Flexural Modulus             | 2.24 GPa               | 325 ksi                    | 2 mm/min; ISO 178                  |
|                              | 2.40 GPa               | 348 ksi                    | 1.3 mm/min, 50 mm span; ASTM D790  |
| Izod Impact, Notched         | 8.48 J/cm              | 15.9 ft-lb/in              | ASTM D256                          |
|                              | 1.41 J/cm              | 2.64 ft-lb/in              | ASTM D256                          |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                    |
| Izod Impact, Notched (ISO)   | 70.0 kJ/m <sup>2</sup> | 33.3 ft-lb/in <sup>2</sup> | 80*10*3; ISO 180/1A                |
|                              | 10.0 kJ/m <sup>2</sup> | 4.76 ft-lb/in <sup>2</sup> | 80*10*3; ISO 180/1A                |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                    |
| Izod Impact, Unnotched (ISO) | NB                     | NB                         | 80*10*3; ISO 180/1U                |
| Charpy Impact Unnotched      | NB                     | NB                         | Edgew 80*10*3 sp=62mm; ISO 179/1eU |
| Charpy Impact, Notched       | 7.50 J/cm <sup>2</sup> | 35.7 ft-lb/in <sup>2</sup> | Edgew 80*10*3 sp=62mm; ISO 179/1eA |
|                              | 1.50 J/cm <sup>2</sup> | 7.14 ft-lb/in <sup>2</sup> | Edgew 80*10*3 sp=62mm; ISO 179/1eA |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                    |
| Dart Drop, Total Energy      | 74.0 J                 | 54.6 ft-lb                 | ASTM D3763                         |
|                              | @Temperature 23.0 °C   | @Temperature 73.4 °F       |                                    |

| Thermal Properties              | Metric                       | English                     | Comments    |
|---------------------------------|------------------------------|-----------------------------|-------------|
| CTE, linear, Parallel to Flow   | 60.2 µm/m-°C                 | 33.4 µin/in-°F              | ASTM E 831  |
|                                 | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |             |
|                                 | 60.2 µm/m-°C                 | 33.4 µin/in-°F              | ISO 11359-2 |
|                                 | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |             |
| CTE, linear, Transverse to Flow | 63.6 µm/m-°C                 | 35.3 µin/in-°F              | ASTM E 831  |
|                                 | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |             |
|                                 | 63.6 µm/m-°C                 | 35.3 µin/in-°F              | ISO 11359-2 |
|                                 | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |             |

| Deflection Temperature at 1.8 MPa<br>(150 psi)<br>Thermal Properties | 125 °C<br>Metric             | 257 °F<br>English             | Flatw 80×10×4 sp=64mm; ISO 75/Af<br>Comments |
|----------------------------------------------------------------------|------------------------------|-------------------------------|----------------------------------------------|
|                                                                      | 126 °C<br>@Thickness 3.20 mm | 259 °F<br>@Thickness 0.126 in | unannealed; ASTM D648                        |
| Vicat Softening Point                                                | 143 °C                       | 289 °F                        | Rate B/50; ASTM D1525                        |
|                                                                      | 143 °C                       | 289 °F                        | Rate B/50; ISO 306                           |
|                                                                      | 145 °C                       | 293 °F                        | Rate B/120; ISO 306                          |
| Flammability, UL94                                                   | V-2<br>@Thickness 1.50 mm    | V-2<br>@Thickness 0.0591 in   | UL 94 by SABIC-IP                            |

| Optical Properties    | Metric | English | Comments                              |
|-----------------------|--------|---------|---------------------------------------|
| Transmission, Visible | 90 %   | 90 %    | transparent; thickness not quantified |

## Contact Songhan Plastic Technology Co.,Ltd.

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