

## SABIC Innovative Plastics Lexan® EXL1464T PC Copolymer (Asia Pacific)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Lexan® EXL1464T polycarbonate (PC) siloxane copolymer resin is a transparent injection molding grade. This resin offers extreme low temperature (-40 °C) ductility in combination with medium flow characteristics, improved release and excellent processability with opportunities for shorter IM cycle times compared to standard PC. Lexan EXL1464T resin is an improved release general purpose product available in transparent and opaque colors and is an excellent candidate for a broad range of applications. This data was supplied by SABIC-IP for the Asia Pacific region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-EXL1464T-PC-Copolymer-Asia-Pacific.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-EXL1464T-PC-Copolymer-Asia-Pacific.php)

| Physical Properties                | Metric                                               | English                                              | Comments                                             |
|------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| Specific Gravity                   | 1.19 g/cc                                            | 1.19 g/cc                                            | ASTM D 792                                           |
| Density                            | 1.19 g/cc                                            | 0.0430 lb/in <sup>3</sup>                            | ISO 1183                                             |
| Moisture Absorption at Equilibrium | 0.090 %                                              | 0.090 %                                              | 23°C / 50% RH; ISO 62                                |
| Water Absorption at Saturation     | 0.12 %<br>@Temperature 23.0 °C                       | 0.12 %<br>@Temperature 73.4 °F                       | ISO 62                                               |
| Linear Mold Shrinkage, Flow        | 0.0040 - 0.0080 cm/cm<br>@Thickness 3.20 mm          | 0.0040 - 0.0080 in/in<br>@Thickness 0.126 in         | SABIC Method                                         |
| Linear Mold Shrinkage, Transverse  | 0.0040 - 0.0080 cm/cm<br>@Thickness 3.20 mm          | 0.0040 - 0.0080 in/in<br>@Thickness 0.126 in         | SABIC Method                                         |
| Melt Flow                          | 9.0 g/10 min<br>@Load 1.20 kg,<br>Temperature 300 °C | 9.0 g/10 min<br>@Load 2.65 lb,<br>Temperature 572 °F | [cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133 |
|                                    | 10 g/10 min<br>@Load 1.20 kg,<br>Temperature 300 °C  | 10 g/10 min<br>@Load 2.65 lb,<br>Temperature 572 °F  | ASTM D 1238                                          |

| Mechanical Properties     | Metric   | English  | Comments                      |
|---------------------------|----------|----------|-------------------------------|
| Hardness, Rockwell L      | 87       | 87       | ISO 2039-2                    |
| Tensile Strength at Break | 55.0 MPa | 7980 psi | 50 mm/min; ISO 527            |
|                           | 59.0 MPa | 8560 psi | Type I, 50 mm/min; ASTM D 638 |
| Tensile Strength, Yield   | 56.0 MPa | 8120 psi | 50 mm/min; ISO 527            |
|                           | 57.0 MPa | 8270 psi | Type I, 50 mm/min; ASTM D 638 |

| Mechanical Properties        | Metric                 | English                    | Comments                                   |
|------------------------------|------------------------|----------------------------|--------------------------------------------|
| Elongation at Break          | 100.5 %                | 100.5 %                    | 50 mm/min; ISO 527                         |
|                              | 123.9 %                | 123.9 %                    | Type I, 50 mm/min; ASTM D 638              |
| Elongation at Yield          | 5.4 %                  | 5.4 %                      | 50 mm/min; ISO 527                         |
|                              | 5.6 %                  | 5.6 %                      | Type I, 50 mm/min; ASTM D 638              |
| Tensile Modulus              | 2.18 GPa               | 316 ksi                    | 50 mm/min; ASTM D 638                      |
|                              | 2.30 GPa               | 334 ksi                    | 1 mm/min; ISO 527                          |
| Flexural Yield Strength      | 88.0 MPa               | 12800 psi                  | 2 mm/min; ISO 178                          |
|                              | 92.0 MPa               | 13300 psi                  | 1.3 mm/min, 50 mm span; ASTM D 790         |
| Flexural Modulus             | 2.12 GPa               | 307 ksi                    | 2 mm/min; ISO 178                          |
|                              | 2.18 GPa               | 316 ksi                    | 1.3 mm/min, 50 mm span; ASTM D 790         |
| Izod Impact, Notched         | 7.12 J/cm              | 13.3 ft-lb/in              | ASTM D 256                                 |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                            |
|                              | 8.24 J/cm              | 15.4 ft-lb/in              | ASTM D 256                                 |
|                              | @Temperature 23.0 °C   | @Temperature 73.4 °F       |                                            |
| Izod Impact, Notched (ISO)   | 55.0 kJ/m <sup>2</sup> | 26.2 ft-lb/in <sup>2</sup> | 80*10*3; ISO 180/1A                        |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                            |
|                              | 65.0 kJ/m <sup>2</sup> | 30.9 ft-lb/in <sup>2</sup> | 80*10*3; ISO 180/1A                        |
|                              | @Temperature 23.0 °C   | @Temperature 73.4 °F       |                                            |
| Izod Impact, Unnotched (ISO) | NB                     | NB                         | 80*10*3; ISO 180/1U                        |
|                              | @Temperature 23.0 °C   | @Temperature 73.4 °F       |                                            |
|                              | NB                     | NB                         | 80*10*3; ISO 180/1U                        |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                            |
| Charpy Impact Unnotched      | NB                     | NB                         | Edgew 80*10*3 sp=62mm; ISO 179/1eU         |
|                              | @Temperature 23.0 °C   | @Temperature 73.4 °F       |                                            |
|                              | NB                     | NB                         | Edgew 80*10*3 sp=62mm; ISO 179/1eU         |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                            |
| Charpy Impact, Notched       | 6.00 J/cm <sup>2</sup> | 28.6 ft-lb/in <sup>2</sup> | V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA |
|                              | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                            |
|                              | 7.00 J/cm <sup>2</sup> | 33.3 ft-lb/in <sup>2</sup> | V-notch Edgew 80*10*3 sp=62mm;             |

| Mechanical Properties | Metric<br>@ Temperature 23.0 °C | English<br>@ Temperature 73.4 °F | ISO 179/1eA<br>Comments                          |
|-----------------------|---------------------------------|----------------------------------|--------------------------------------------------|
| Impact Test           | 75.0 J                          | 55.3 ft-lb                       | Instrumented Impact Total Energy;<br>ASTM D 3763 |
|                       | @Temperature 23.0 °C            | @Temperature 73.4 °F             |                                                  |
|                       | 77.0 J                          | 56.8 ft-lb                       | Instrumented Impact Total Energy;<br>ASTM D 3763 |
|                       | @Temperature -30.0 °C           | @Temperature -22.0 °F            |                                                  |

| Thermal Properties                          | Metric                       | English                     | Comments                                              |
|---------------------------------------------|------------------------------|-----------------------------|-------------------------------------------------------|
| CTE, linear, Parallel to Flow               | 67.0 µm/m-°C                 | 37.2 µin/in-°F              | ASTM E 831                                            |
|                                             | @Temperature -40.0 - 95.0 °C | @Temperature -40.0 - 203 °F |                                                       |
|                                             | 67.0 µm/m-°C                 | 37.2 µin/in-°F              | ISO 11359-2                                           |
|                                             | @Temperature 23.0 - 80.0 °C  | @Temperature 73.4 - 176 °F  |                                                       |
| CTE, linear, Transverse to Flow             | 80.0 µm/m-°C                 | 44.4 µin/in-°F              | ASTM E 831                                            |
|                                             | @Temperature -40.0 - 95.0 °C | @Temperature -40.0 - 203 °F |                                                       |
|                                             | 80.0 µm/m-°C                 | 44.4 µin/in-°F              | ISO 11359-2                                           |
|                                             | @Temperature 23.0 - 80.0 °C  | @Temperature 73.4 - 176 °F  |                                                       |
| Deflection Temperature at 1.8 MPa (264 psi) | 116 °C                       | 241 °F                      | Flatw 80*10*4 sp=64mm; ISO 75/Af                      |
|                                             | 120 °C                       | 248 °F                      |                                                       |
|                                             | @Thickness 3.20 mm           | @Thickness 0.126 in         | unannealed; ASTM D 648                                |
|                                             |                              |                             |                                                       |
| Vicat Softening Point                       | 138 °C                       | 280 °F                      | Rate A/50; ASTM D 1525                                |
|                                             | 138 °C                       | 280 °F                      | Rate B/50; ISO 306                                    |
|                                             | 139 °C                       | 282 °F                      | Rate B/120; ISO 306                                   |
| UL RTI, Electrical                          | 130 °C                       | 266 °F                      | UL 746B                                               |
| UL RTI, Mechanical without Impact           | 130 °C                       | 266 °F                      | UL 746B                                               |
| Flammability, UL94                          | V-2                          | V-2                         | UL 94                                                 |
|                                             | @Thickness 3.00 mm           | @Thickness 0.118 in         |                                                       |
| Glow Wire Test                              | 850 °C                       | 1560 °F                     | Glow Wire Ignitability Temperature;<br>IEC 60695-2-13 |
|                                             | @Thickness 0.800 mm          | @Thickness 0.0315 in        |                                                       |
|                                             | 850 °C                       | 1560 °F                     | Glow Wire Ignitability Temperature;                   |

| Thermal Properties | @Thickness 3.00 mm<br>Metric | @Thickness 0.118 in<br>English | IEC 60695-2-13<br>Comments                   |
|--------------------|------------------------------|--------------------------------|----------------------------------------------|
|                    | 960 °C                       | 1760 °F                        | Glow Wire Flammability Index; IEC 60695-2-12 |
|                    | @Thickness 3.00 mm           | @Thickness 0.118 in            |                                              |

| Optical Properties    | Metric             | English             | Comments    |
|-----------------------|--------------------|---------------------|-------------|
| Haze                  | 3.0 %              | 3.0 %               | ASTM D 1003 |
|                       | @Thickness 2.54 mm | @Thickness 0.100 in |             |
| Transmission, Visible | 82 %               | 82 %                | ASTM D 1003 |
|                       | @Thickness 2.54 mm | @Thickness 0.100 in |             |

| Electrical Properties | Metric                        | English                       | Comments   |
|-----------------------|-------------------------------|-------------------------------|------------|
| Volume Resistivity    | $\geq 1.00\text{e}+15$ ohm-cm | $\geq 1.00\text{e}+15$ ohm-cm | ASTM D 257 |
| Surface Resistance    | $\geq 1.00\text{e}+15$ ohm    | $\geq 1.00\text{e}+15$ ohm    | ASTM D 257 |

| Descriptive Properties            | Value | Comments       |
|-----------------------------------|-------|----------------|
| Ball Pressure Test, 125°C +/- 2°C | pass  | IEC 60695-10-2 |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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