

SABIC Innovative Plastics Lexan® EXL8454 PC COPOLYMER (Asia Pacific)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Lexan® EXL8454 is a PC/siloxane copolymer resin with medium flow, excellent low temperature impact and 50% post consumer recycle content. Limited availability and restricted color only. Higher color variability and contamination risks including black specs needs to be considered before approval for use in applications.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-EXL8454-PC-COPOLYMER-Asia-Pacific.php

| Physical Properties | Metric | English | Comments |
|-----------------------------|--------------------------------------|--------------------------------------|--------------|
| Specific Gravity | 1.20 g/cc | 1.20 g/cc | ASTM D792 |
| Water Absorption | 0.15 % | 0.15 % | SABIC Method |
| | @Time 86400 sec | @Time 24.0 hour | |
| Linear Mold Shrinkage, Flow | 0.0040 - 0.0080 cm/cm | 0.0040 - 0.0080 in/in | SABIC Method |
| | @Thickness 3.20 mm | @Thickness 0.126 in | |
| Melt Flow | 10 g/10 min | 10 g/10 min | ASTM D1238 |
| | @Load 1.20 kg, Temperature 300 °C | @Load 2.65 lb, Temperature 572 °F | |

| Mechanical Properties | Metric | English | Comments |
|---------------------------|-----------------------|-----------------------|-----------------------------------|
| Tensile Strength at Break | 55.0 MPa | 7980 psi | Type I, 50 mm/min; ASTM D638 |
| Tensile Strength, Yield | 57.0 MPa | 8270 psi | Type I, 50 mm/min; ASTM D638 |
| Elongation at Break | 100 % | 100 % | Type I, 50 mm/min; ASTM D638 |
| Elongation at Yield | 6.0 % | 6.0 % | Type I, 50 mm/min; ASTM D638 |
| Tensile Modulus | 2.20 GPa | 319 ksi | 5 mm/min; ASTM D638 |
| Flexural Yield Strength | 90.0 MPa | 13100 psi | 1.3 mm/min, 50 mm span; ASTM D790 |
| Flexural Modulus | 2.10 GPa | 305 ksi | 1.3 mm/min, 50 mm span; ASTM D790 |
| Izod Impact, Notched | 8.00 J/cm | 15.0 ft-lb/in | ASTM D256 |
| | 6.50 J/cm | 12.2 ft-lb/in | ASTM D256 |
| | @Temperature -40.0 °C | @Temperature -40.0 °F | |
| | 7.00 J/cm | 13.1 ft-lb/in | ASTM D256 |
| | @Temperature -30.0 °C | @Temperature -22.0 °F | |

| Mechanical Properties | Metric | English | Comments |
|-------------------------|---|---|------------------------------------|
| | 6.70 J/cm ² | 31.9 ft-lb/in ² | 10*4 sp=62mm; ISO 179/1eA |
| | 2.70 J/cm ² @Temperature -30.0 °C | 12.8 ft-lb/in ² @Temperature -22.0 °F | Edgew 80*10*4 sp=62mm; ISO 179/1eA |
| | 5.40 J/cm ² @Temperature -40.0 °C | 25.7 ft-lb/in ² @Temperature -40.0 °F | Edgew 80*10*3 sp=62mm; ISO 179/1eA |
| | 5.80 J/cm ² @Temperature -30.0 °C | 27.6 ft-lb/in ² @Temperature -22.0 °F | Edgew 80*10*3 sp=62mm; ISO 179/1eA |
| Dart Drop, Total Energy | 70.0 J @Temperature 23.0 °C | 51.6 ft-lb @Temperature 73.4 °F | ASTM D3763 |

| Thermal Properties | Metric | English | Comments |
|---|--|---|-----------------------|
| CTE, linear, Parallel to Flow | 60.0 µm/m-°C @Temperature -40.0 - 40.0 °C | 33.3 µin/in-°F @Temperature -40.0 - 104 °F | ASTM E 831 |
| CTE, linear, Transverse to Flow | 60.0 µm/m-°C @Temperature -40.0 - 40.0 °C | 33.3 µin/in-°F @Temperature -40.0 - 104 °F | ASTM E 831 |
| Deflection Temperature at 1.8 MPa (264 psi) | 123 °C @Thickness 3.20 mm | 253 °F @Thickness 0.126 in | unannealed; ASTM D648 |
| Vicat Softening Point | 145 °C | 293 °F | Rate B/50; ASTM D1525 |
| Flammability, UL94 | HB @Thickness 0.750 mm | HB @Thickness 0.0295 in | UL 94 |
| Glow Wire Test | 875 °C | 1610 °F | IEC 60695-2-13 |
| | 875 °C | 1610 °F | IEC 60695-2-13 |
| | 850 °C @Thickness 1.00 mm | 1560 °F @Thickness 0.0394 in | IEC 60695-2-12 |
| | 960 °C @Thickness 3.00 mm | 1760 °F @Thickness 0.118 in | IEC 60695-2-12 |

| Electrical Properties | Metric | English | Comments |
|-----------------------|--------------------|--------------------|-----------|
| Volume Resistivity | >= 1.00e+15 ohm-cm | >= 1.00e+15 ohm-cm | ASTM D257 |

| Electrical Properties | Metric | English | Comments |
|-----------------------|--|--|-------------------|
| Surface Resistance | $\geq 1.00 \times 10^{15} \text{ ohm}$ | $\geq 1.00 \times 10^{15} \text{ ohm}$ | ASTM D257 |
| Dielectric Constant | 3.0 @Frequency 1.00e+6 Hz | 3.0 @Frequency 1.00e+6 Hz | ASTM D150 |
| Dielectric Strength | 15.0 kV/mm @Thickness 0.800 mm | 381 kV/in @Thickness 0.0315 in | in oil; ASTM D149 |
| Dissipation Factor | 0.0093 @Frequency 1.00e+6 Hz | 0.0093 @Frequency 1.00e+6 Hz | ASTM D150 |

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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