

## Samyang Trirex<sup>®</sup> 3030U Polycarbonate, UV Stabilized

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, UV Stabilized

### Material Notes:

TRIEX<sup>®</sup> polycarbonate resins offer superior transparency, mechanical properties, good dimensional stability and high electrical performance, which allows it to be widely used for electrical, electronic, appliance, automotive and optical industries. Applications: Specially suitable for weathering resistance (UV stabilized type) All information provided by Samyang

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Samyang-Trirex-3030U-Polycarbonate-UV-Stabilized.php](http://www.lookpolymers.com/polymer_Samyang-Trirex-3030U-Polycarbonate-UV-Stabilized.php)

| Physical Properties   | Metric                | English               | Comments  |
|-----------------------|-----------------------|-----------------------|-----------|
| Specific Gravity      | 1.20 g/cc             | 1.20 g/cc             | ASTM D792 |
| Water Absorption      | 0.15 %                | 0.15 %                | ASTM D570 |
|                       | @Time 86400 sec       | @Time 24.0 hour       |           |
| Linear Mold Shrinkage | 0.0050 - 0.0070 cm/cm | 0.0050 - 0.0070 in/in | ASTM D955 |
|                       | @Thickness 3.00 mm    | @Thickness 0.118 in   |           |

| Mechanical Properties   | Metric             | English             | Comments  |
|-------------------------|--------------------|---------------------|-----------|
| Hardness, Rockwell R    | 120                | 120                 | ASTM D785 |
| Tensile Strength, Yield | 70.6 MPa           | 10200 psi           | ASTM D638 |
| Elongation at Break     | 120 %              | 120 %               | ASTM D638 |
| Flexural Yield Strength | 88.3 MPa           | 12800 psi           | ASTM D790 |
| Flexural Modulus        | 1.96 GPa           | 284 ksi             | ASTM D790 |
| Izod Impact, Unnotched  | 9.32 J/cm          | 17.4 ft-lb/in       | ASTM D256 |
|                         | @Thickness 3.17 mm | @Thickness 0.125 in |           |

| Thermal Properties                          | Metric   | English  | Comments  |
|---|--|--|-----------|
| CTE, linear                                 | 56.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 31.1 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ | ASTM D696 |
| Deflection Temperature at 0.46 MPa (66 psi) | 148 $\text{Å}^\circ\text{C}$                           | 298 $\text{Å}^\circ\text{F}$                             | ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 138 $\text{Å}^\circ\text{C}$                           | 280 $\text{Å}^\circ\text{F}$                             | ASTM D648 |
| Flammability, UL94                          | V-2  | V-2  |           |
|   | @Thickness 1.59 mm                                     | @Thickness 0.0625 in                                     |           |

| Electrical Properties | Metric                          | English                         | Comments  |
|-----------------------|---------------------------------|---------------------------------|-----------|
| Volume Resistivity    | 4.00e+16 ohm-cm                 | 4.00e+16 ohm-cm                 | ASTM D257 |
| Dielectric Constant   | 2.85<br>@Frequency 1.00e+6 Hz   | 2.85<br>@Frequency 1.00e+6 Hz   | ASTM D150 |
| Dielectric Strength   | 30.0 kV/mm                      | 762 kV/in                       | ASTM D149 |
| Dissipation Factor    | 0.0092<br>@Frequency 1.00e+6 Hz | 0.0092<br>@Frequency 1.00e+6 Hz | ASTM D150 |
| Arc Resistance        | 120 sec                         | 120 sec                         | ASTM D495 |

| Processing Properties     | Metric        | English       | Comments |
|---------------------------|---------------|---------------|----------|
| Rear Barrel Temperature   | 280 - 300 Â°C | 536 - 572 Â°F |          |
| Middle Barrel Temperature | 280 - 300 Â°C | 536 - 572 Â°F |          |
| Front Barrel Temperature  | 280 - 300 Â°C | 536 - 572 Â°F |          |
| Nozzle Temperature        | 290 - 310 Â°C | 554 - 590 Â°F |          |
| Melt Temperature          | 300 - 310 Â°C | 572 - 590 Â°F |          |
| Drying Temperature        | 120 Â°C       | 248 Â°F       |          |
| Dry Time                  | 3 - 5 hour    | 3 - 5 hour    |          |
| Moisture Content          | <= 0.020 %    | <= 0.020 %    |          |
| Screw Speed               | 30 - 80 rpm   | 30 - 80 rpm   |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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