

## Samyang Trirex<sup>®</sup> 3030IR Polycarbonate

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Molded

### 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. Characteristics: High viscosity Good releasing type Applications: Specially suitable for extrusion and direct-blow molding. Suitable for injection molding where mechanical strength is required. All information provided by Samyang

Order this product through the following link:

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

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

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 @Thickness 3.17 mm	17.4 ft-lb/in @Thickness 0.125 in	ASTM D256

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 @Thickness 1.59 mm	V-2 @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	2.85	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	30.0 kV/mm	762 kV/in	ASTM D149
Dissipation Factor	0.0092	0.0092	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
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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