

**TRIREX® 3025U**

Samyang Corporation - Polycarbonate

**General Information**
**Product Description**

- TRIREX is the registered trademark of polycarbonate resin manufactured by Samyang Corporation. TRIREX polycarbonate resins offer superior mechanical properties, good dimensional stability and high electrical performance, which allows it to be widely used for electrical, electronic, appliance, automotive and optical industries.
- TRIREX 3025U is a UV stabilized polycarbonate resin grade which has a low melt viscosity and transparency in combination with superior physical properties.

**CHARACTERISTICS**

- High ultraviolet(UV) stability
- High flowability
- Good impact resistance
- Workable under a wide range of temperatures (-100 ~ 135 )
- High electrical performance
- Good dimensional stability
- Excellent transparency
- Low moisture absorbency
- Good weather resistance

**APPLICATIONS**

- TRIREX 3025U resin grade is used in out-door applications such as electric meter cover, window panes, sing board, wind break, signal lamps, and ship lights etc.

**General**

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• UV Stabilizer		
Features	• Good Dimensional Stability • Good Electrical Properties • Good Impact Resistance	• Good Weather Resistance • High Clarity • High Flow	• Low Moisture Absorption • Medium Viscosity • UV Resistant
Uses	• Appliances • Automotive Applications • Electrical/Electronic Applications	• Lighting Fixtures • Optical Applications • Outdoor Applications	• Windows & Doors
Automotive Specifications	• GM EDS-M-5301-31 • GM GMP.PC.001	• GM GMW15702-455301 PC • GM GMW16728P-PC-T3	
Forms	• Pellets		
Processing Method	• Injection Molding		

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	13	g/10 min	ASTM D1238
Water Absorption (24 hr, 73°F)	0.15	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	10200	psi	ASTM D638
Tensile Elongation (Break)	140	%	ASTM D638
Flexural Modulus	327000	psi	ASTM D790
Flexural Strength (Yield)	13200	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	17	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	273	°F	ASTM D648



CLTE - Flow	2.8E-5 to 3.9E-5 in/in/°F	ASTM D696
<b>Electrical</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Volume Resistivity	4.0E+16 ohms·cm	ASTM D257
Dielectric Strength	760 V/mil	ASTM D149
Arc Resistance	120 sec	ASTM D495
<b>Flammability</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Flame Rating (0.06 in)	V-2	UL 94

### Processing Information

<b>Injection</b>	<b>Nominal Value Unit</b>
Drying Temperature	248 °F
Drying Time	3.0 to 5.0 hr
Suggested Max Moisture	0.020 %
Rear Temperature	455 to 500 °F
Middle Temperature	482 to 527 °F
Front Temperature	509 to 554 °F
Nozzle Temperature	509 to 572 °F
Processing (Melt) Temp	509 to 572 °F
Mold Temperature	149 to 221 °F
Back Pressure	36.3 to 102 psi
Screw Speed	40 to 70 rpm
Vent Depth	7.9E-4 to 3.1E-3 in

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

