


Sam Yang Trirex® PC-3025U 12 MFI UV Stabilized Clear Polycarbonate

Categories: [Polymer](#); [Thermoplastic](#); [Polycarbonate](#); [Polycarbonate, UV Stabilized](#)

Material Notes: Information provided by US distributor Polymer Technology and Services, LLC (PTS).

Key Words: Polymer Technology & Services, LLC (PTS)

Vendors:  **Polymer Technology and Services, LLC**, is a supplier of high quality name brand and generic engineering thermoplastics. Visit www.ptslc.com, Phone (800)-475-1701, or Fax (615) 898-1697.

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Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ASTM D792
Water Absorption	0.150 %	0.150 %	24 hours at 73°C
Melt Flow	12.0 g/10 min @Load 1.20 kg, Temperature 300 °C	12.0 g/10 min @Load 2.65 lb, Temperature 572 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	120	120	ASTM D785
Tensile Strength, Yield	62.1 MPa @Thickness 3.17 mm	9010 psi @Thickness 0.125 in	
Elongation at Break	120 % @Thickness 3.17 mm	120 % @Thickness 0.125 in	
Flexural Modulus	2.21 GPa @Thickness 3.17 mm	321 ksi @Thickness 0.125 in	
Flexural Yield Strength	89.6 MPa @Thickness 3.17 mm	13000 psi @Thickness 0.125 in	
Izod Impact, Notched	7.47 J/cm @Thickness 3.17 mm	14.0 ft-lb/in @Thickness 0.125 in	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	135 °C	275 °F	ASTM D648
Flammability, UL94	V-2 @Thickness 1.59 mm	V-2 @Thickness 0.0625 in	

Optical Properties	Metric	English	Comments
Transmission, Visible	80.0 %	80.0 %	Clear grade, but transmission not quantified.

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	254 - 274 °C	490 - 525 °F	
Middle Barrel Temperature	266 - 277 °C	510 - 530 °F	
Front Barrel Temperature	277 - 293 °C	530 - 560 °F	
Nozzle Temperature	271 - 293 °C	520 - 560 °F	
Melt Temperature	277 - 293 °C	530 - 560 °F	
Mold Temperature	71.1 - 93.3 °C	160 - 200 °F	
Drying Temperature	121 °C	250 °F	
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	
Injection Pressure	75.8 - 124 MPa	11000 - 18000 psi	
Back Pressure	0.345 - 1.38 MPa	50.0 - 200 psi	
Clamp Pressure	27.6 - 68.9 MPa	4000 - 10000 psi	
Cycle Time - Injection	1.00 - 2.50 sec	1.00 - 2.50 sec	
Cycle Time - Cooling	5.00 - 40.0 sec	5.00 - 40.0 sec	
Vent Depth	0.00200 - 0.00800 cm	0.000787 - 0.00315 in	
Screw Speed	40.0 - 70.0 rpm	40.0 - 70.0 rpm	

Descriptive Properties	
Injection Speed- Edge Gate	Slow-Medium
Injection Speed- Tab Gate	Medium-Fast
Injection Speed- Tunnel Gate	Fast
Shot Size	40-60%

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