TRIREX® ST6-3022PJ(3)

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.
- Among our Specialty PC, Si-PC is a polycarbonate-polysiloxane copolymer having low temperature ductility up to -60º with fair transparency, high-impact, flame-resistant, and anti-chemical properties.

This grade is supplied in transparent pellet form for injection molding application and can be colored upon customer's request.

- CHARACTERISTICS

-Outstanding impact resistance at low temparature
-Superior flame retardancy
-Good chemical resistance
-Good flowability(at injection molding)
-Good dimesional stability
-Good weather resistance
-High heat performance
-Eco-friendly (halogen-free)

- APPLICATIONS

Trirex resin offers design engeneers an outstancing new option for outdoor applications, auto parts, bullet-resistant glass, helmets, smartphone case. Our solutions are fo automotive, Electronic devices, Transparent, etc.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Good Dimensional Stability • Good Electrical Properties • Good Flow	• Good Weather Resistance • Low Moisture Absorption • Low Temperature Impact Resistance	• Low Viscosity
Uses	• Appliances • Automotive Applications	• Compounding • Electrical/Electronic Applications	• Optical Applications
Appearance	• Clear/Transparent		
Forms	• Granules	• Pellets	
Processing Method	• Compounding	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.118 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Water Absorption (24 hr, 73°F)	0.30	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	9370	psi	ASTM D638
Tensile Elongation (Break)	160	%	ASTM D638
Flexural Modulus	247000	psi	ASTM D790
Flexural Strength (Yield)	12400	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	16	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	261	°F	ASTM D648
CLTE - Flow	2.8E-5 to 3.9E-5	in/in/°F	ASTM D696

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.0E+16	ohms·cm	ASTM D257
Dielectric Strength	760	V/mil	ASTM D149
Arc Resistance	120	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 in)	V-2		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	3.0 to 5.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	500 to 554	°F
Middle Temperature	518 to 572	°F
Front Temperature	554 to 590	°F
Nozzle Temperature	536 to 590	°F
Processing (Melt) Temp	536 to 590	°F
Mold Temperature	149 to 221	°F
Back Pressure	58.0 to 87.0	psi
Screw Speed	50 to 60	rpm
Vent Depth	7.9E-4 to 3.1E-3	in

Notes

[1] Typical properties: these are not to be construed as specifications.