TRIREX® 3020U(02)

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 3020U(02) is a polycarbonate resin grade which has high low temperature impact strength in combination with superior mechanical and physical property.

CHARACTERISTICS

- Superior low temperature impact resistance
- Good flow-ability
- Workable under a wide range of temperatures (-100°C ~ 135°C)
- High electrical performance
- Good dimensional stability
- Low moisture absorbency
- Good weather resistance

APPLICATIONS

- TRIREX 3020U(02) resin grade is used for Injection molding products. UV stabilized.
- Low viscosity. Transparent colors only.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• UV Stabilizer		
Features	• Good Dimensional Stability • Good Electrical Properties • Good Flow	• Good Weather Resistance • Low Moisture Absorption • Low Temperature Impact Resistance	• Low Viscosity • UV Resistant
Uses	• Appliances • Automotive Applications	• Electrical/Electronic Applications • Optical Applications	
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• 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)	23	g/10 min	ASTM D1238
Water Absorption (24 hr, 73°F)	0.15	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	9280	psi	ASTM D638
Tensile Elongation (Break)	90	%	ASTM D638
Flexural Modulus	284000	psi	ASTM D790
Flexural Strength (Yield)	12500	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	14	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	266	°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
Optical	**Nominal Value**	**Unit**	**Test Method**
Haze	0.400	%	ASTM D1003

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	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

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