TRIREX® 3017IR

Polycarbonate

Samyang Corporation

Message:

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 3017IR 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 3017IR resin grade is designed for injection molding products.

Ultra low viscosity. Transparent colors only.

General Information				
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			
	Electrical/Electronic Applications			
	Optical Applications			
Appearance	Clear/Transparent			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.20	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	32	g/10 min	ASTM D1238	
Molding Shrinkage - Flow (3.00 mm)	0.50 to 0.70	%	ASTM D955	
Water Absorption (23°C, 24 hr)	0.15	%	ASTM D570	
Mechanical	Nominal Value	Unit	Test Method	

Tensile Strength (Yield)	66.2	MPa	ASTM D638
Tensile Elongation (Break)	130	%	ASTM D638
Flexural Modulus	2250	MPa	ASTM D790
Flexural Strength (Yield)	93.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	740	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	130	°C	ASTM D648
CLTE - Flow	5.0E-5 to 7.0E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.0E+16	ohms·cm	ASTM D257
Dielectric Strength	30	kV/mm	ASTM D149
Arc Resistance	120	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	V-2		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
		C	
Drying Time	3.0 to 5.0	hr	
Drying Time Suggested Max Moisture	3.0 to 5.0 0.020		
		hr	
Suggested Max Moisture	0.020	hr %	
Suggested Max Moisture Rear Temperature	0.020 235 to 260	hr %	
Suggested Max Moisture Rear Temperature Middle Temperature	0.020 235 to 260 250 to 275	hr % °C °C	
Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature	0.020 235 to 260 250 to 275 265 to 290	hr % °C °C °C	
Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature Nozzle Temperature	0.020 235 to 260 250 to 275 265 to 290 265 to 300	hr % °C °C °C	
Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Processing (Melt) Temp	0.020 235 to 260 250 to 275 265 to 290 265 to 300 265 to 300	hr % °C °C °C °C	
Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Processing (Melt) Temp Mold Temperature	0.020 235 to 260 250 to 275 265 to 290 265 to 300 265 to 300 65.0 to 105	hr % °C °C °C °C °C	
Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Processing (Melt) Temp Mold Temperature Back Pressure	0.020 235 to 260 250 to 275 265 to 290 265 to 300 265 to 300 65.0 to 105 0.250 to 0.700	hr % °C °C °C °C °C MPa	

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