

Product Information

# TRIEX<sup>®</sup> 3022U Polycarbonate Resin



# TRIREX 3022U GRADE

## 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 3022U 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 3022U resin grade is used for Injection molding products. UV stabilized.
- Medium viscosity. Transparent colors only.

# TYPICAL DATA OF TRIEX 3022U GRADE



PROPERTY	UNIT	ASTM METHOD	TYPICAL DATA
<b>PHYSICAL</b>			
Specific Gravity	-	D792	1.20
Water Absorption (24 hours at 23°C)	%	D570	0.15
Melt Flow Rate (300°C, 1.2kg)	g/10min	D1238	15.5
<b>MECHANICAL</b>			
Tensile Strength at yield	kg <sub>f</sub> /cm <sup>2</sup>	D638	700
Tensile Elongation at break	%	D638	130
Flexural Strength at yield	kg <sub>f</sub> /cm <sup>2</sup>	D790	950
Flexural Modulus	kg <sub>f</sub> /cm <sup>2</sup>	D790	23,000
Izod Impact Strength, notched, 23°C (1/8")	kg <sub>f</sub> ·cm/cm	D256	90
Rockwell Hardness	R scale	D785	
<b>THERMAL</b>			
HDT, 18.6 kg <sub>f</sub> /cm <sup>2</sup>	°C	D648	134
Coefficient of Linear Thermal Expansion	mm/mm/°C	D696	5~7 x 10 <sup>-5</sup>
<b>ELECTRICAL</b>			
Volume Resistivity	Ω·cm	D257	4 x 10 <sup>16</sup>
Dielectric Strength	kV/mm	D149	30
Dielectric Constant	-	D150	
Dissipation Factor	-	D150	
ARC Resistance	sec	D495	120
<b>OTHERS</b>			
UL-94 Flammability (1/16" thickness)	-	(UL 94)	V-2
Haze		D1003	0.4

※ The figures listed in this table are typical values obtained under the standard test methods and may not be applicable for products that are under different application condition.

# PROCESSING GUIDE FOR TRIEX 3022U GRADE



- General processing conditions for TRIEX 3022U are shown below. Drying prior to processing is essential to ensure desired appearance and property performance.

SPECIFICATION	UNIT	CONDITIONS
Drying Temperature	°C	120
Drying Time	hr	3 ~ 5
Moisture Content, Max	%	0.02
Melt Temperature	°C	265 ~ 300
Nozzle Temperature	°C	265 ~ 300
Front Temperature	°C	265 ~ 290
Middle Temperature	°C	250 ~ 275
Rear Temperature	°C	235 ~ 260
Mold Temperature	°C	65 ~ 105
Back Pressure	MPa	0.25 ~ 0.7
Screw Speed	rpm	40 ~ 70
Vent Depth	mm	0.02 ~ 0.08

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