

TRIEX 3022L1 GRADE

DESCRIPTION

- TRIEX is the registered trademark of polycarbonate resin manufactured by Samyang Corporation. TRIEX 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.
- TRIEX 3022L1 is a general purpose polycarbonate resin grade which has a medium melt viscosity and transparency in combination with superior physical properties.

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

- TRIEX 3022L1 resin grade is used mainly in electronics and electric applications, including connector, lamps parts, gear, fan, drill housing, cameral, light covers. This grade is also applicable to automotive fields such as lamps lens and housing.

TYPICAL DATA OF TRIEX 3022L1 GRADE

PROPERTY	UNIT	ASTM METHOD	TYPICAL DATA
PHYSICAL			
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
MECHANICAL			
Tensile Strength at yield	kg _f /cm ²	D638	670
Tensile Elongation at break	%	D638	120
Flexural Strength at yield	kg _f /cm ²	D790	880
Flexural Modulus	kg _f /cm ²	D790	25,500
Izod Impact Strength, notched, 23°C (1/8")	kg _f ·cm/cm	D256	70
Rockwell Hardness	R scale	D785	120
THERMAL			
HDT, 4.6 kg _f /cm ²	°C	D648	145
HDT, 18.6 kg _f /cm ²	°C	D648	134
Coefficient of Linear Thermal Expansion	mm/mm/°C	D696	5.6X10 ⁻⁵
ELECTRICAL			
Volume Resistivity	Ω·cm	D257	4X10 ¹⁶
Dielectric Strength	kV/mm	D149	30
Dielectric Constant	—	D150	2.85
Dissipation Factor	—	D150	0.0092
ARC Resistance	sec	D495	120
OTHERS			
UL-94 Flammability (1/16" thickness)	—	(UL 94)	V-0
Mold Shrinkage (3mm thickness)	%	D955	0.5~0.7

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 3022L1 GRADE

General processing conditions for TRIEX 3022L1 are shown below. Drying prior to processing is essential to ensure desired appearance and property performance.

SPECIFICATION	UNIT	CONDITIONS
Drying Temperature	℃	120
Drying Time	hr	3~4
Moisture Content, Max	%	
Melt Temperature	℃	290 ~ 310
Nozzle Temperature	℃	280 ~ 315
Front Temperature	℃	290 ~ 315
Middle Temperature	℃	275 ~ 300
Rear Temperature	℃	260 ~ 280
Mold Temperature	℃	65 ~ 105
Back Pressure	MPa	350~700
Screw Speed	rpm	50~70
Vent Depth	mm	