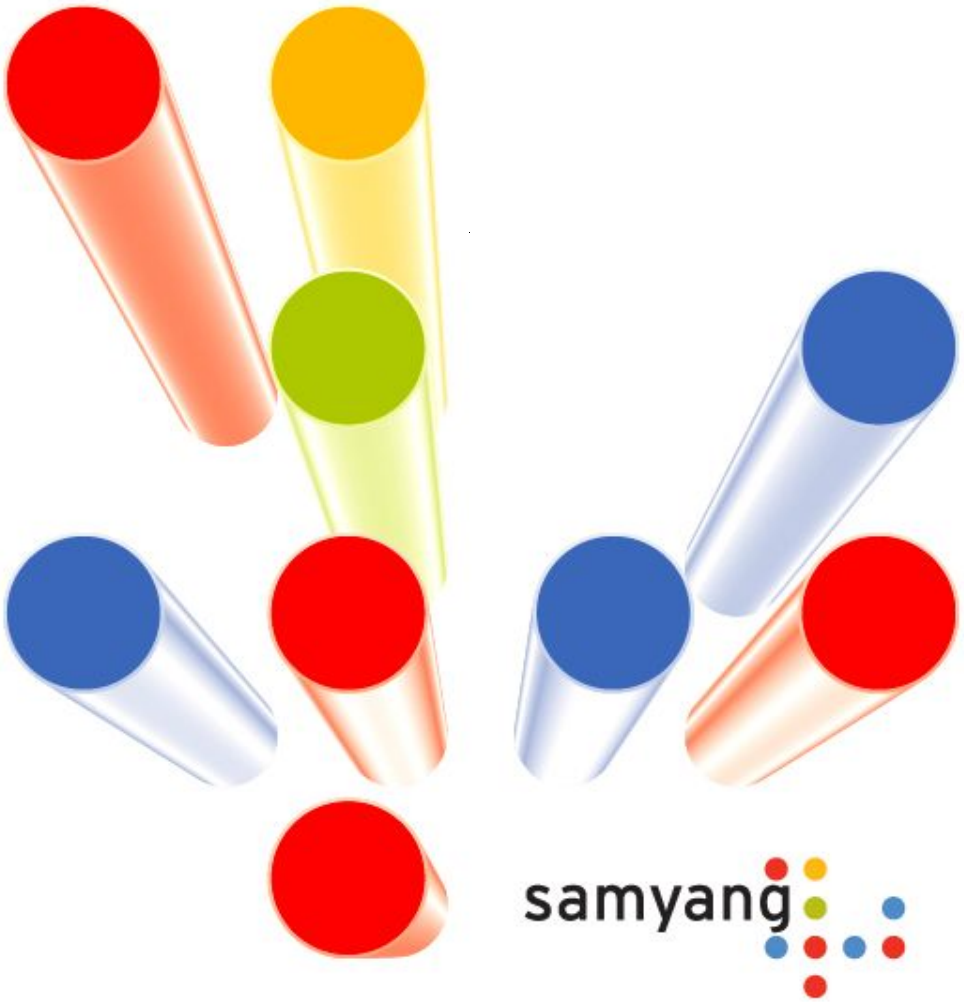
Product Information

TRIREX® 3020HF
Polycarbonate Resin



TRIREX 3020HF 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 3020HF 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 ℃ ~ 135 ℃)
- High electrical performance
- Good dimensional stability
- Low moisture absorbency
- Good weather resistance

APPLICATIONS

- TRIREX 3020HF resin grade is designed for injection molding products.
- High flow viscosity. Transparent colors only.

TYPICAL DATA OF TRIREX 3020HF GRADE

PROPERTY	UNIT	ASTM METHOD	TYPICAL DATA
PHYSICAL			
Specific Gravity	-	D792	1.20
Water Absorption (24 hours at 23℃)	%	D570	0.15
Melt Flow Rate (300℃, 1.2kg)	g/10min	D1238	23
MECHANICAL			
Tensile Strength at yield	kg_f/cm^2 , Mpa, psi	D638	680, 67, 9670
Tensile Elongation at break	%	D638	130
Flexural Strength at yield	kg_f/cm^2 , Mpa, psi	D790	945, 93, 13400
Flexural Modulus	kg_f/cm^2 , Mpa, psi	D790	23,000, 2250, 327100
Izod Impact Strength, notched, 23℃ (1/8")	$kg_f \cdot cm/cm$, J/m, ft*lbf/in	D256	80, 785, 15
Rockwell Hardness	R scale	D785	
THERMAL			
HDT, 18.6 kg_f/cm^2	℃, °F	D648	133, 271
Coefficient of Linear Thermal Expansion	mm/mm/℃	D696	5~7 x 10^{-5}
ELECTRICAL			
Volume Resistivity	Ω·cm	D257	4 x 10^{16}
Dielectric Strength	kV/mm	D149	30
Dielectric Constant	-	D150	
Dissipation Factor	-	D150	
ARC Resistance	sec	D495	120
OTHERS			
UL-94 Flammability (1/16" thickness)	-	(UL 94)	V-2
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 TRIREX 3020HF GRADE

• General processing conditions for TRIREX 3020HF are shown below. Drying prior to processing is essential to ensure desired appearance and property performance.

SPECIFICATION	UNIT	CONDITIONS
Drying Temperature	℃, °F	120, 250
Drying Time	hr	3 ~ 5
Moisture Content, Max	%	0.02
Melt Temperature	℃, °F	265~300,510~570
Nozzle Temperature	℃, °F	265~300,510~570
Front Temperature	℃, °F	265~290,510~555
Middle Temperature	℃, °F	250~275,480~530
Rear Temperature	℃, °F	235~260,455~500
Mold Temperature	℃, °F	65~105,150~220
Back Pressure	Mpa, psi	0.25 ~ 0.7 , 0.04~0.1
Screw Speed	rpm	40 ~ 70
Vent Depth	mm, inch	0.02 ~ 0.08, 0.0008~0.003

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