

TRIREX® 3020MD

Samyang Corporation - Polycarbonate

General Information
Product Description

- MFR(300°C/1.2kg) 23g/10min; medical devices; suitable for sterilization with high-energy radiation; biocompatible according to ISO10993 and USP Class VI test requirement; low viscosity; injection molding

CHARACTERISTICS

- High flow with low viscosity
- Biocompatibility according to ISO 10993 and USP Class VI
- EO and Steam sterilizable
- High-energy radiation sterilizable
- Available in both water clear and purple tint

APPLICATIONS

- Medical devices that require high-energy radiation sterilization and biocompatibility supported by ISO 10993 and USP Class VI test requirements

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• Autoclave Sterilizable • Biocompatible • Ethylene Oxide Sterilizable • Food Contact Acceptable • Good Flow • Low Viscosity • Radiation (Gamma) Resistant
Uses	• Medical Devices • Medical/Healthcare Applications • Non-specific Food Applications
Agency Ratings	• ISO 10993 • USP Class VI
Appearance	• Clear - Blue Tint • Clear/Transparent
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	23	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.118 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Water Absorption (24 hr, 73°F)	0.15	%	ASTM D570
Mechanical			
Tensile Strength (Yield)	9670	psi	ASTM D638
Tensile Elongation (Break)	100	%	ASTM D638
Flexural Modulus	327000	psi	ASTM D790
Flexural Strength (Yield)	13400	psi	ASTM D790
Impact			
Notched Izod Impact (73°F, 0.125 in)	15	ft-lb/in	ASTM D256
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	259	°F	ASTM D648
CLTE - Flow	2.8E-5 to 3.9E-5	in/in/°F	ASTM D696
Electrical			
Volume Resistivity	4.0E+16	ohms·cm	ASTM D257
Dielectric Strength	760	V/mil	ASTM D149
Arc Resistance	120	sec	ASTM D495
Flammability			
Flame Rating (0.06 in)	V-2		UL 94



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.

