TRIREX® 3020FD

Samyang Corporation - *Polycarbonate*

General Information

Product Description

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

CHARACTERISTICS

- High flow with low viscosity
- Biocompatibility according to ISO10993 and USP Class VI
- EO and Steam sterilizable
- Available in water clear transparent

APPLICATIONS

- Medical devices that require EO or steam sterilization and biocompatibility according to ISO 10993 and USP Class VI test protocols

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	• Low Viscosity • Steam Sterilizable
Uses	• Medical Devices	• Medical/Healthcare Applications	• Non-specific Food Applications
Agency Ratings	• ISO 10993	• USP Class VI	
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
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	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	9670	psi	ASTM D638
Tensile Elongation (Break)	130	%	ASTM D638
Flexural Modulus	327000	psi	ASTM D790
Flexural Strength (Yield)	13400	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	15	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	275	°F	ASTM D648
CLTE - Flow	2.8E-5 to 3.9E-5	in/in/°F	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	4.0E+16	ohms·cm	ASTM D257
Dielectric Strength	760	V/mil	ASTM D149
Arc Resistance	120	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
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 518	°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.