Tritan™ MX731

Copolyester

Eastman Chemical Company

Message:

Eastman Tritan[™] Copolyester MX731 is an amorphous product with excellent appearance and clarity. Eastman Tritan[™] Copolyester MX731 is a high flow medical grade of Eastman Tritan[™] that has viscosity reductions of 40-50% relative to Eastman Tritan[™] Copolyester MX711. Eastman Tritan[™] Copolyester MX731 contains a mold release derived from vegetable based sources. Eastman Tritan[™] Copolyester MX731 has many outstanding features that include excellent toughness, hydrolytic stability, heat resistance, chemical resistance, and melt flowability. Eastman Tritan[™] Copolyester MX731 has been formulated for medical devices. Eastman Tritan[™] Copolyester MX731 has been tested for FDA/ISO 10993 and USP Class VI Biological Evaluation testing after Gamma and ETO sterilization.

General Information				
UL YellowCard	E118289-101674517			
Additive	Mold Release			
Features	Amorphous			
	Ethylene Oxide Sterilizable			
	Fast Molding Cycle			
	Good Chemical Resistance			
	Good Color Stability			
	Good Processability			
	Good Toughness			
	High Clarity			
	High Flow			
	High Heat Resistance			
	Hydrolytically Stable			
	Radiation Sterilizable			
Uses	Medical Devices			
	Medical/Healthcare Applications			
Agency Ratings	FDA Unspecified Rating			
	ISO 10993			
	USP Class VI			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.18	g/cm³	ASTM D792	
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (R-Scale, 23°C)	111		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus				
23°C	1580	МРа	ASTM D638	

23°C	1600	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	43.0	MPa	ASTM D638
Yield, 23°C	44.0	MPa	ISO 527-2
Break, 23°C	52.0	MPa	ASTM D638
Break, 23°C	49.0	MPa	ISO 527-2
Tensile Elongation			
Yield, 23°C	7.0	%	ASTM D638, ISO 527-2
Break, 23°C	210	%	ASTM D638
Break, 23°C	150	%	ISO 527-2
Flexural Modulus			
23°C	1580	MPa	ASTM D790
23°C	1500	MPa	ISO 178
Flexural Stress			
23°C	60.0	MPa	ISO 178
Yield, 23°C	64.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	860	J/m	ASTM D256
-40°C	11	kJ/m²	ISO 180
23°C	83	kJ/m²	ISO 180
Unnotched Izod Impact (23°C)	No Break		ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	94.0	°C	
1.8 MPa, Unannealed	80.0	°C	
Optical	Nominal Value	Unit	Test Method
Transmittance (Total)	91.0	%	ASTM D1003
Haze	< 1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	88.0	°C	
Drying Time	4.0 to 6.0	hr	
Processing (Melt) Temp	260 to 282	°C	
Mold Temperature	38.0 to 66.0	°C	

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