

DuraStar™ MN621

Thermoplastic Polyester
Eastman Chemical Company

Message:

DuraStar™ Polymer MN621 has been tested for FDA/ISO 10993 and USP Class VI Biological Evaluation testing after Gamma and EtO sterilization. It contains a mold release to improve ejection. It processes easily and requires minimal drying time. It has superior toughness, high clarity and good chemical resistance.

General Information			
Additive	Mold Release		
Features	E-beam Sterilizable		
	Good Chemical Resistance		
	Good Mold Release		
	Good Processability		
	Good Toughness		
	High Clarity		
	Radiation Sterilizable		
Uses	Medical/Healthcare Applications		
Agency Ratings	ISO 10093		
	USP Class VI		
Appearance	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.20	g/cm ³	ASTM D792
23°C	1.19	g/cm ³	ISO 1183
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.60	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C)	105		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
Yield, 23°C	46.0	MPa	ASTM D638
Yield, 23°C	47.0	MPa	ISO 527-2
Break, 23°C	53.0	MPa	ASTM D638
Break, 23°C	49.0	MPa	ISO 527-2
Tensile Elongation			
Yield, 23°C	5.0	%	ASTM D638
Yield, 23°C	4.0	%	ISO 527-2

Break, 23°C	310	%	ASTM D638
Break, 23°C	210	%	ISO 527-2
Flexural Modulus			
23°C	1900	MPa	ASTM D790
23°C	1750	MPa	ISO 178
Flexural Stress			
23°C	64.0	MPa	ISO 178
Yield, 23°C	67.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
-40°C	60	J/m	ASTM D256
23°C	370	J/m	ASTM D256
-40°C	6.3	kJ/m ²	ISO 180
23°C	30	kJ/m ²	ISO 180
Unnotched Izod Impact			ASTM D4812
-40°C	No Break		
23°C	No Break		
Instrumented Dart Impact			
-40°C, Energy at Peak Load	48.0	J	ASTM D3763
23°C, Energy at Peak Load	45.0	J	ASTM D3763
-40°C, Energy to Peak Force	55.0	J	ISO 6603-2
23°C, Energy to Peak Force	71.0	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	73.0	°C	ASTM D648, ISO 75-2/B
1.8 MPa, Unannealed	65.0	°C	ASTM D648
1.8 MPa, Unannealed	66.0	°C	ISO 75-2/A
Optical	Nominal Value	Unit	Test Method
Transmittance			ASTM D1003
Total	91.0	%	
Regular	89.0	%	
Haze	0.30	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	70.0	°C	
Drying Time	3.0	hr	
Processing (Melt) Temp	250 to 290	°C	
Mold Temperature	15.0 to 30.0	°C	

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