

Eastar™ MN005

Copolyester
Eastman Chemical Company

Message:

Eastar™ Copolyester MN005 has been tested for FDA/ISO 10993 and USP Class VI Biological Evaluation testing after Gamma and EtO sterilization. It has excellent flow characteristics while maintaining superior mechanical properties. It is easy to process and can fill intricate tools. Its most outstanding features are clarity, toughness, chemical resistance and radiation resistance. MN005 contains a mold release.

This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.

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General Information			
UL YellowCard	E118289-220158		
Additive	Mold Release		
Features	E-beam Sterilizable		
	Good Chemical Resistance		
	Good Flow		
	Good Mold Release		
	Good Processability		
	Good Toughness		
	Medium Clarity		
	Radiation (Gamma) Resistant		
	Radiation Sterilizable		
Uses	Cosmetics		
	Decorative Displays		
	Medical/Healthcare Applications		
	Personal Care		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.23	g/cm³	ASTM D792
Molding Shrinkage - Flow	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.15	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C)	104		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield, 23°C	47.0	MPa	

Break, 23°C	38.0	MPa	
Tensile Elongation			ASTM D638
Yield, 23°C	5.0	%	
Break, 23°C	260	%	
Flexural Modulus (23°C)	1900	MPa	ASTM D790
Flexural Strength (Yield, 23°C)	65.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C	69	J/m	
23°C	No Break		
Unnotched Izod Impact			ASTM D4218
-40°C	No Break		
23°C	No Break		
Instrumented Dart Impact			ASTM D3763
-40°C, Energy at Peak Load	46.0	J	
23°C, Energy at Peak Load	47.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	70.0	°C	
1.8 MPa, Unannealed	67.0	°C	
Vicat Softening Temperature	84.0	°C	ASTM D1525 ¹
Optical	Nominal Value	Unit	Test Method
Transmittance (Total)	90.0	%	ASTM D1003
Haze	1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	75.0	°C	
Drying Time	6.0	hr	
Processing (Melt) Temp	250 to 270	°C	
Mold Temperature	15.0 to 30.0	°C	
NOTE			
1.	Loading 1 (10 N)		

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