# Eastar™ MN059 Natural

# Copolyester

# Eastman Chemical Company

#### Message:

Eastar™ copolyesters are brilliantly clear polymers that have excellent impact strength, chemical resistance, dimensional stability, and low shrinkage rates. Eastar™ Copolyester MN059 Natural is a medical grade material that contains a mold release.

This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.

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General Information					
Additive	Mold Release				
Features	Good Chemical Resistance				
	Good Dimensional Stability				
	Good Impact Resistance				
	Good Mold Release				
	High Clarity				
	Low Shrinkage				
Uses	Medical/Healthcare Applicat	ions			
Appearance	Natural Color				
Forms	Pellets				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.33	g/cm³	ASTM D792		
Molding Shrinkage - Flow	0.20	%	ASTM D955		
Water Absorption (23°C, 24 hr)	0.19	%	ASTM D570		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (R-Scale, 23°C)	111		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Strength			ASTM D638		
Yield, 23°C	58.0	МРа			
Break, 23°C	24.0	МРа			
Tensile Elongation			ASTM D638		
Yield, 23°C	4.0	%			
Break, 23°C	90	%			
Flexural Modulus (23°C)	2400	MPa	ASTM D790		
Flexural Strength (Yield, 23°C)	78.0	МРа	ASTM D790		
Impact	Nominal Value	Unit	Test Method		
Notched Izod Impact			ASTM D256		

-40°C	33	J/m	
23°C	56	J/m	
Unnotched Izod Impact			ASTM D4812
-40°C	2400	J/m	
23°C	No Break		
Instrumented Dart Impact			ASTM D3763
-40°C, Energy at Peak Load	38.0	J	
23°C, Energy at Peak Load	32.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	69.0	°C	
1.8 MPa, Unannealed	63.0	°C	
Vicat Softening Temperature	80.0	°C	ASTM D1525 <sup>1</sup>
Optical	Nominal Value	Unit	Test Method
Transmittance (Total)	82.0	%	ASTM D1003
Haze	< 1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	4.0 to 6.0	hr	
Processing (Melt) Temp	277 to 293	°C	
Mold Temperature	16.0 to 32.0	°C	
NOTE			
1.	Loading 1 (10 N)		

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# Recommended distributors for this material

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