

# Ecomann® Bioresin EM20000

Polyhydroxyalkanoate

Shenzhen Ecomann Biotechnology Co., Ltd.

Message:

EM20000 is semi-crystalline biodegradable, aliphatic bio-polyester designed for use in injection molding applications. EM20000 is PHA base compound with PLA, minerals and some additives.  
EM20000 is certificated to meet EN13432 & ASTM D6400 standards for biodegradable plastics.  
Typical applications: Personal care and cosmetic items, trays, disposable and single use items, caps and many other injection molding products

General Information			
Filler / Reinforcement	Mineral		
Additive	Unspecified Additive		
Features	Aliphatic		
	Biodegradable		
	Compostable		
	Good Colorability		
	Good Processability		
	High Gloss		
	High Molecular Weight		
	Hydrolysis Resistant		
	Medium Heat Resistance		
	Recyclable Material		
Semi Crystalline			
Uses	Caps		
	Cosmetics		
	Personal Care		
Agency Ratings	ASTM D 6400		
	EN 13432		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.25	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (170°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.5	%	ASTM D955
Water Absorption (Equilibrium)	< 0.40	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	25.0	MPa	ASTM D638

Tensile Elongation (Break)	20	%	ASTM D638
Flexural Modulus	1350	MPa	ASTM D790
Flexural Strength	40.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact (Area)	4.00	kJ/m <sup>2</sup>	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	100	°C	ASTM D1525 <sup>1</sup>
Melting Temperature	140 to 160	°C	DSC
Optical	Nominal Value	Unit	Test Method
Yellowness Index	50	YI	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	3.0	hr	
Rear Temperature	135 to 145	°C	
Middle Temperature	140 to 165	°C	
Front Temperature	140 to 175	°C	
Nozzle Temperature	140 to 165	°C	
NOTE			

1. Rate B (120°C/h), Loading 1 (10 N)

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#### Recommended distributors for this material

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