

Ecomann® PHA EM50010

Polyhydroxyalkanoate

Shenzhen Ecomann Biotechnology Co., Ltd.

Message:

EM50010 is semi-crystalline biodegradable, aliphatic bio-polyester designed for use in elastomer applications. EM50010 is PHA based compound with plasticizer and some additives.

Ecomann EM50010 meets USFDA and EU direct food contact and OK compost and OK Home compost requirements.

Typical applications: Pen cap, replace soft PVC, TPU, and thermo plastic elastomer

General Information			
Additive	Plasticizer Unspecified Additive		
Features	Aliphatic Barrier Resin Biodegradable Compostable Food Contact Acceptable Good Flexibility High Gloss Moisture Resistant Plasticized Recyclable Material Semi Crystalline		
Agency Ratings	EU Food Contact, Unspecified Rating FDA Food Contact, Unspecified Rating		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (170°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Water Absorption (Equilibrium)	< 0.40	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	30		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	5.00	MPa	ASTM D638
Tensile Elongation (Break)	600	%	ASTM D638
Impact	Nominal Value	Unit	Test Method

Unnotched Izod Impact (Area)	No Break		ASTM D256
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	50.0	°C	ASTM D1525 ¹
Melting Temperature	90.0 to 110	°C	DSC
Optical	Nominal Value	Unit	Test Method
Yellowness Index	60	YI	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	60.0	°C	
Drying Time	3.0	hr	
Rear Temperature	90.0 to 105	°C	
Middle Temperature	95.0 to 115	°C	
Front Temperature	95.0 to 120	°C	
Nozzle Temperature	100 to 120	°C	

NOTE

1. Rate B (120°C/h), Loading 1 (10 N)

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