

# ECOPOND<sup>®</sup> Compostable Polyesters A200 HF

# **Product Introduction**

A200 HF is a compostable polyester produced through polycondensation reaction, consisting of 1,4-butanediol and succinic acid. When metabolized in the soil or compost under standard conditions, A200 HF will be biodegraded into small monomers. These small monomers will be taken by microorganisms, and eventually biodegraded into carbon dioxide and water.

The compostability of A200 HF fulfills the requirements of DIN V 54900-1, EN 13432 and ASTM D 6400.

A200 HF complys with OM6 in EU 10-2011, especially suitable for food contact materials.

Alike LDPE, A200 HF is a soft and flexible semi-crystalline polyester with excellent properties suitable for injection molding articles for general purpose.

Properties	Features
White granulates	Good processability and printability
• Melting point 112-116 °C	<ul> <li>Soft and flexible, good flow ability</li> </ul>
• MFR 16.0-22.0 (g/10min, 190 °C, 2.16 kg)	<ul> <li>Good dimensional stability</li> </ul>
• MVR 14.8-20.4 (cm <sup>3</sup> /10min,190 °C, 2.16 kg)	• Short cycle time

CHEMICAL



# **Resin Property**

A200 HF has similar mechanical and process properties to LDPE. The listed values are measured by test specification and used for referential purpose only.

A200 HF Typical Property							
Properties		Test Method	Test Condition	S.I. Units	Typical Values		
Mechanical Property	Tensile Strength	ISO 527-2	50 mm/min	МРа	37		
	Elongation	ISO 527-2	50 mm/min	%	62		
	Flexural Strength	ISO 178	2 mm/min	МРа	29		
	Flexural Modulus	ISO 178	2 mm/min	МРа	600		
	Impact Strength, IZOD	ISO 180	4 mm, 23 °C	KJ/m <sup>2</sup>	6.6		
Thermal	Melting Point	DSC	10 °C/min	°C	112-116		
Property	HDT	ASTM D648	0.45 MPa	°C	93		
Others	Melt Mass-Flow Rate	ISO 1133	190 °C, 2.16 kg	g/10min	18.0		
	Moisture Content	ISO 15512	Method C	ppm	240		
	Specific Gravity	ISO 1183	23 °C	g/cm <sup>3</sup>	1.26		

#### **Processing Information**

A200 HF has good processing stability. It can be used alone or blended with other material through conventional injection processing.

Well packaged products can be used directly. If package is damaged before use, the product should be dried prior to processing. Moisture levels above 800 ppm may impair injection operation. Effective drying takes place at 80 °C for 4 hours. The dried product should keep away from moisture.

Parameters for Injection Processing							
Setting		Typical Value <sup>[1]</sup>	Range <sup>[1]</sup>				
Barrel Zone Temp.	Rear	150 °C	120-200 °C				
	Center	160 °C	140-210 °C				
	Front	170 °C	140-220 °C				
Nozzle Temp.		170 °C	140-220 °C				
Mold Temp.		50 °C	20~60 °C				
Processing Temp. Limit		230 °C					
Mold shrinkage		1.0~2.0%					

[1] The data sheet is just for reference. In actual process, the parameter should be adjusted.



# **Quality Control**

A200 HF is produced through an optimized continuous polycondensation process, with online melt viscosity and MFR control.

### **Packaging and Storage**

A200 HF is supplied in 800 kg/package. Temperatures during transportation and storage may not exceed 60 °C at any time. Storage time in an unopened bag may not surpass 12 month at room temperature (23 °C). Use as soon as possible if the package is broken.



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