

TDS NO.: WTA020004 Version: 1.0



# **ECOPOND®** Compostable Polyesters **A200 SF**

#### **Product Introduction**

A200 SF is a compostable polyester produced through polycondensation reaction, consisting of 1,4-butanediol and succinate acid. When metabolized in the soil or compost under standard conditions, A200 SF 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 SF fulfills the requirements of DIN V 54900-1, EN 13432 and ASTM D 6400.

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

Alike LDPE, A200 SF is soft and flexible semi-crystalline polyester with excellent fluidity suitable for injection molding articles with thin wall thickness.

Properties	Features
White granulates	Good processability and printability
Melting point 112-116 °C	Soft and flexible, good flow ability
● MFR 26.0-33.0 (g/10min, 190 °C, 2.16 kg)	Good dimensional stability
• MVR 24.1-30.6 (cm <sup>3</sup> /10min,190 °C, 2.16 kg)	Short cycle time



Version: 1.0



## **Resin Property**

TDS NO.: WTA020004

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

A200 SF Typical Property							
Properties		Test Method	Test Condition	S.I. Units	Typical Values		
	Tensile Strength	ISO 527-2	50 mm/min	МРа	37		
Mashaniaal	Elongation	ISO 527-2	50 mm/min	%	20		
Mechanical Property	Flexural Strength	ISO 178	2 mm/min	МРа	29		
	Flexural Modulus	ISO 178	2 mm/min	МРа	585		
	Impact Strength, IZOD	ISO 180	4 mm,23 °C	KJ/m <sup>2</sup>	4.5		
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	28.0		
	Moisture Content	ISO 15512	Method C	ppm	240		
	Specific Gravity	ISO 1183	23 ℃	g/cm <sup>3</sup>	1.26		

## **Processing Information**

A200 SF 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 ℃	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%				

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

TDS NO.: WTA020004 Version: 1.0



## **Quality Control**

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

#### **Packaging and Storage**

A200 SF 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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