

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

## A200

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### Product Introduction

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

A200 complies with OM6 in EU 10-2011, which is especially suitable for food contact materials.

Alike LDPE, A200 is soft and flexible semi-crystalline polyester with excellent properties suitable for extrusion products for general purpose.

Properties	Features
<ul style="list-style-type: none"> <li>● White granulates</li> <li>● Melting point 112-116 °C</li> <li>● MFR 4.0-6.0 (g/10min, 190 °C, 2.16 kg)</li> <li>● MVR 3.7-5.6 (cm<sup>3</sup>/10min, 190 °C, 2.16 kg)</li> </ul>	<ul style="list-style-type: none"> <li>● Good processability and printability</li> <li>● Soft and flexible</li> <li>● good melt strength</li> <li>● Low coating thickness</li> </ul>


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## Resin Property

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

A200 Typical Property					
Properties		Test Method	Test Condition	S.I. Units	Typical Values
Mechanical Property	Tensile Strength	ISO 527-2	50 mm/min	MPa	38
	Elongation	ISO 527-2	50 mm/min	%	210
	Flexural Strength	ISO 178	2 mm/min	MPa	30
	Flexural Modulus	ISO 178	2 mm/min	MPa	610
	Impact Strength, IZOD	ISO 180	4 mm, 23 °C	KJ/m <sup>2</sup>	10.0
Thermal Property	Melting Point	DSC	10 °C/min	°C	112-116
	HDT	ASTM D648	0.45 MPa	°C	93
Others	Melt Mass-Flow Rate	ISO 1133	190 °C, 2.16 kg	g/10min	5.0
	Moisture Content	ISO 15512	Method C	ppm	240
	Specific Gravity	ISO 1183	23 °C	g/cm <sup>3</sup>	1.26

## Processing Information

A200 has good processing stability. It can be used alone or blended with other material through conventional extrusion 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 Extrusion Processing			
Setting		Typical Value <sup>[2]</sup>	Range <sup>[2]</sup>
Melt Temp.		135 °C	130-140 °C
Barrel Zone Temp.	Rear	130 °C	125-135 °C
	Center	135 °C	130-140 °C
	Front	130 °C	125-135 °C
Die Head Temp.		135 °C	130-140 °C
Processing Temp. Limit		150 °C	
Pre-Dry Requirements <sup>[1]</sup>		80 °C, 4 h	

[1] Effective drying takes place at 80 °C for 4 hours.

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

## Quality Control

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

## Packaging and Storage

A200 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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