ECOPOND® Compostable Polyesters KB600 NF30

Product Introduction

KB600 NF30 is a bio-based compostable polyester obtained by lactic acid as the main raw material.

KB600 NF30 is a production grade that is formulated to meet the needs of extrusion processes and can be co-blended and processed with PBAT or PBS.

KB600 NF30 is compliant with the industrial composting standard EN13432 and ASTM D6400. Under the standard conditions of industrial composting, KB600 NF30 will be biodegraded into small molecules, and is ultimately converted to carbon dioxide and water by microbial metabolism.

KB600 NF30 is compliant with the Regulations EC No. 1935/2004, EU No. 10/2011 and GB4806.6-2016, and is suitable for using in food contact materials.

Properties	Features
● White/opaque granulates ● Melting point 140-170°C ● MFR 3.0-5.0 (g/10min, 190°C, 2.16 kg)	● Good melt strength ● Excellent biocompatibility ● Lower carbon footprint

Resin Property

KB600 NF30 has similar mechanical properties to PS. The listed values are measured by test specification and used for referential purpose only.

KB600 NF30 Typical Property					
Properties		**Test Method**	**Test Condition**	**S.I. Units**	**Typical Values**
Mechanical Property	Tensile Strength	ISO 527-2	10 mm/min	MPa	46
	Elongation	ISO 527-2	10 mm/min	%	5
	Flexural Modulus	ISO 178	2 mm/min	MPa	3400
	Impact Strength, IZOD	ISO 180	4 mm，23°C	kJ/m^2	4
Thermal Property	Melting Point	DSC	10°C/min	°C	150
	Glass Transition Temperature	DSC	10°C/min	°C	55-60
Others	Melt Mass-Flow Rate	ISO 1133	190°C, 2.16 kg	g/10min	4.0
	D content	Internal method	Internal method	%	4.2
	Moisture Content	ISO 15512	Method C	ppm	320
	Specific Gravity	ISO 1183	23°C	g/cm^3	1.24

Processing Information

KB600 NF30 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 the extrusion processes. Effective drying takes place at 80°C for 4 hours. The dried product should keep away from moisture.

Parameters for Extrusion Processing		
	Typical Value[1]	**Range[1]**
Melt Temp.	200°C	190-220°C
Conveying Section Temp.	185°C	170-190°C
Melting Section Temp.	195°C	180-200°C
Homogenizing metering Section Temp.	200°C	190-210°C
Die Head Temp.	200°C	190-210°C
Processing Temp. Limit	230°C	
Pre-Dry Requirements	80°C, 4 h	

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

Quality Control

KB600 NF30 is produced through an optimized continuous process, with online melt viscosity and MFR control.

Packaging and Storage

KB600 NF30 is supplied in 800 kg/package. Temperatures during transportation and storage may not exceed 50°C at any time. Use as soon as possible if the package is broken.

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