

ECOPOND® Compostable Polyesters

KB100 SF

Product Introduction

KB100 SF is a compostable random copolymer produced by polycondensation reaction, consisting of a copolyester of 1,4-butanediol, adipic acid and terephthalate acid. When metabolized in home compost under standard conditions, KB100 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 KB100 SF fulfills the requirements of NFT51-800, AS 5810, DIN V 54900-1, EN 13432 and ASTM D 6400, and the material meets the U.S. FDA food safety standards.

The high molecular weight of KB100 SF makes it possible to blow or cast films, alone or blended with other materials.

KB100 SF is a soft and flexible semi-crystalline polyester with ultra-high flow properties suitable for masterbatches and injection molding articles for special modification purpose.

Properties	Features
<ul style="list-style-type: none">● White granulates● Melting point 115-125 °C● MFR 18.0-22.0 (g/10min, 190 °C, 2.16 kg)● MVR 16.5-20.2 (cm³/10min, 190 °C, 2.16 kg)	<ul style="list-style-type: none">● Good processability and printability● Soft and flexible● good flow ability● Controllable water vapour transmission rate (WVTR)

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Resin Property

KB100 SF has similar mechanical and process properties to LDPE. The listed values are measured by test specification and used for referential purpose only.

KB100 SF Typical Property					
Properties		Test Method	Test Condition	S.I. Units	Typical Values
Mechanical Property	Tensile Strength	ISO 527	50 mm/min	MPa	18
	Elongation	ISO 527	50 mm/min	%	772
	Flexural Strength	ISO 178	2 mm/min	MPa	6.9
	Flexural Modulus	ISO 178	2 mm/min	MPa	125
	Impact Strength, IZOD notched	ISO 180	4 mm, 23 °C	J/m	NB
Thermal Property	Melting Point	DSC	10 °C/min	°C	115-125
Others	Melt Mass-Flow Rate	ISO 1133	190 °C, 2.16 kg	g/10min	20.0
	Melt Volume-Flow Rate	ISO 1133	190 °C, 2.16 kg	cm ³ /10min	18.3
	Moisture Content	ISO 15512	Method C	ppm	360
	Specific Gravity	ISO 1183	23 °C	g/cm ³	1.22
	Acid Number	DIN EN 12634-1998	-	mg KOH/g	1.25

*Before MFR test, the product should be dried at 80 °C for 1 hour.

Processing Information

KB100 SF has good processing stability. It can be used alone or blended with other material through conventional blowing or casting process.

Well packaged products can be used directly. If package had been damaged before use, the product should be dried prior to processing. When the moisture content exceeds 500 ppm, film-blowing will be affected. Effective drying takes place at 80 °C for 4 hours. The dried product should keep away from moisture.

Setting		Typical Value ^[1]	Range ^[1]
Barrel Zone Temp.	Rear	160 °C	150-200 °C
	Center	170 °C	160-210 °C
	Front	180 °C	170-210 °C
Nozzle Temp.		170 °C	160-200 °C
Mold Temp.		25 °C	20~30 °C
Processing Temp. Limit		230 °C	

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

Quality Control

KB100 SF is produced through an optimized continuous polycondensation process, with online melt viscosity and MVR control.

Packaging and Storage

KB100 SF is supplied in 800 kg/bigbag or 1200 kg/bigbag. 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 had been broken.



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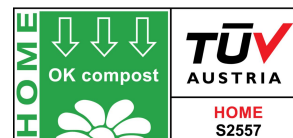
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The OK Compost Home certification of KB100 SF is in process.

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