

# STYRENICS

## Edistir® R 850E Balance BA90

 HIPS  
 HIPS bio-attributed


### SUSTAINABILITY

Bio raw materials can be used in production processes together with traditional ones. To attribute the characteristics of sustainability to the final product, Versalis applies the **Mass Balance** approach, an acknowledged chain of custody that ensures the allocation of sustainability characteristics of raw materials, to final products in a regulated and verifiable manner.

Balance® BA products are provided with a **sustainability declaration** indicating the amount of Bio Attributed component. They guarantee identical performance, quality and properties, as they do not differ in chemical composition and physical-mechanical performance from standard products.

The production of Edistir® R 850E Balance BA90 contributes to the circular economy model since the bionafta comes from biological feedstock (eg. vegetable oils).

Balance® BA90 products have 90% of bio-attributed share.

### PROPERTIES

General	Test Conditions	Test Method	Unit	Value
Water Absorption	24 h - 23°C	ISO 62	%	< 0,1
Density	-	ISO 1183	g/cm <sup>3</sup>	1,04
Bulk density	-	ISO 60	g/cm <sup>3</sup>	0,65
<b>Rheological</b>				
Melt Flow Index	200 °C - 5 kg	ISO 1133	g/10'	4
<b>Mechanical</b>				
Tensile stress at yield	50 mm / min	ISO 527	MPa	22
Tensile stress at break	50 mm / min	ISO 527	MPa	28
Tensile strain at break	50 mm / min	ISO 527	%	70
Rockwell Hardness	L/M Scale	ISO 2039/2	-	L 65
Tensile Modulus	1 mm / min	ISO 527	MPa	1900
Flexural strenght	2 mm/min	ISO 178	MPa	38
Izod Impact Strenght, notched	+ 23 °C - 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	10
Izod Impact Strenght, notched	- 30 °C - 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	6,5
<b>Thermal</b>				
Coefficient of Linear Thermal Expansion	-	ASTM D 696	10 <sup>-5</sup> / °C	9
Thermal Conductivity	-	ISO 8302	W/(K·m)	0,17
Moulding Shrinkage	-	ISO 294/4	%	0,4 ÷ 0,7
Vicat Softening Temperature	10 N - 50 °C/h	ISO 306/A	°C	99
Vicat Softening Temperature	50 N - 50 °C/h	ISO 306/B	°C	91
Deflection temperature under load (annealed)	1,82 MPa - 120°C/h	ISO 75-2/A	°C	85
<b>Flammability</b>				
Flame Behaviour	1,5 mm	UL 94*	cl.	HB
Wire Test (GWT)	3 mm	IEC 60695-2-10	°C	650





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## APPLICATIONS

Edistir® R 850E Balance BA90 is suitable for:

- thermoformed food packaging such as tumblers, flatware, yoghurt pots and lids
- sheets for flocking
- sheets and foils
- shoe heels

## PROCESSABILITY

Extrusion:

- Melt temperature 210 - 240°C

Injection Moulding:

- Predrying normally not required
- Melt Temperature 210 -260°C
- Mould Temperature 20 - 60°C

## STORAGE

-  Store away from atmospheric agents and direct sunlight, away from sources of heat and light.
-  The product, if stored correctly, keeps its characteristics for at least fifteen months.

## AVAILABILITY

To find out about the availability of the resin and for information on specific applications, please contact the nearest Versalis sales office.

## FOOD DECLARATION

Edistir® R 850E Balance BA90 as supplied in the original packaging, by composition is compliant to some existing regulations on plastic materials intended for food contact.

