balance

versalis

Provisional Technical Data Sheet

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^3	1,04
Bulk density	-	ISO 60	g/cm^3	0,65
Rheological				
Melt Flow Index	200 °C - 5 kg	ISO 1133	g/10'	4
Mechanical				
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^2	10
Izod Impact Strenght, notched	- 30 °C - 4 mm	ISO 180/1A	kJ/m^2	6,5
Thermal				
Coefficient of Linear Thermal Expansion	-	ASTM D 696	10^{-5} / °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
Flammability				
Flame Behaviour	1,5 mm	UL 94*	cl.	HB
Glow Wire Test (GWT)	3 mm	IEC 60695-2-10	°C	650

*internal test

EDISTIR® HIPS bio-attributed **R 850E Balance BA90**

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.

TECHNICAL MANAGEMENT STYRENICS AND CLIENT RELATIONSHIP

For further information, please contact Versalis directly writing to info.styrenics@versalis.eni.com .

Versalis S.p.A.

Head Office
Piazza Boldrini, 1
20097 San Donato Milanese (MI) - Italy
tel. +39 02 52032087 / + 39 02 52032190
tel. +39 02 52042005 / + 39 02 52032319

Mantova
Via Taliercio 14 - 46100 Mantova (MN) - Italy
tel. +39 03 76305520 / +39 03 76305741

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