Beobase PE RTM186

Material Technical Data Sheet

Date of issue: 12/04/2021 Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Powder
Name	:	Beobase PE RTM186
Product code	:	9802100186
Application	:	Rotomoulding
Composition	:	100% bio-polyethylene

1.2. Details of the supplier of the material specification sheet

Manufacturer

Beologic
Jolainstraat 44
8554 Sint-Denijs
info@beologic.com

SECTION 2: Physical, mechanical and thermal properties

2.1. Information on basic physical, mechanical and thermal properties

Properties[1]		Method	Typical Value	Unit
Physical				
Physical state			Solid	
Relative density		ISO 1183-1	0,85-0,95	g/cm³
MFI	(190°C, 2.16 kg)	ISO 1133-1	3-3,5	g/10min
Coloured in mass			No	
UV package			No	
Carbon footprint[2]		PAS 2050	2,260	kg CO_2 Eq/ kg
Shelf life[3]			6	Months
Mechanical				
Tensile modulus		ISO 527	670	MPa
Tensile strenght		ISO 527	14	MPa
Break stress		ISO 527	15	MPa
Elongation at break		ISO 527	605	%
Flexural modulus		ISO 178	440	MPa
Charpy impact strength	(Notched 1eA , 23 °C)	ISO 179	55	kJ/m²
Vicat softening point	(B120)	ISO 306	50-55	°C

(1) Typical properties; not to be construed as specifications.
(2) Carbon footprint calculated by Neutrologic
(3) Only if storage conditions were followed

2.2. Product Carbon footprint

The product carbon footprint helps to define the amount of greenhouse gas emissions generated by a product along its life cycle, it quantifies the ghg-emissions related to the production of our products.

Beologic calculates the carbon footprint of all sales products and this from cradle to gate.

The calculation of the carbon footprint is in accordance with the internationally recognized Greenhouse Gas Protocol Product Standard which is based on the standard ISO-14067 norm and PAS2050.

The carbon footprint is mentioned in our datasheet - by offsetting or compensating the calculated emissions we can present our products as Carbon Neutral compounds. This compensation is according the Verified Carbon Standard – more info via (www.v-c-s.org).

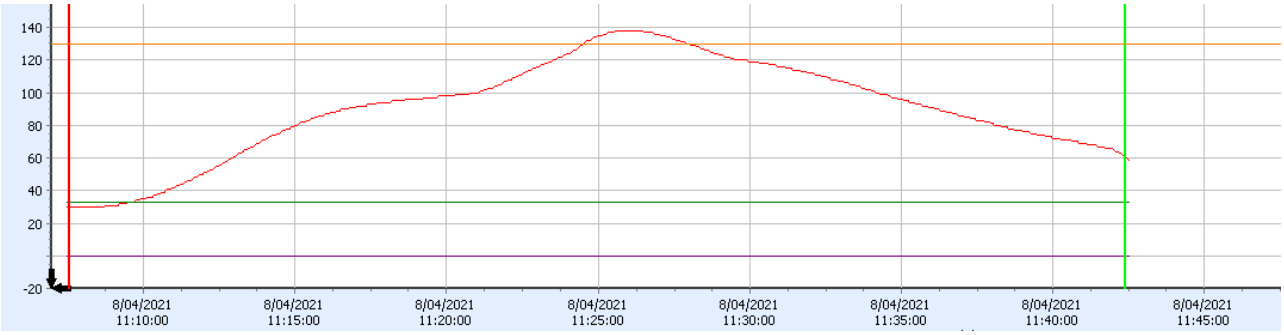
2.3. Other information

No additional information available

SECTION 3: Processing conditions-guidelines

3.1. Processing procedure – lab environment:

1. Procedure based on inner mould temperature/inner air temperature (IAT) measured on lab scale.
2. IAT start at 110°C – 120°C and gradually increase with step of 5°C if nessecary.
3. PIAT < 160°C.
4. Residence time : depending on application or product fe. 100 gr – 20 minutes.
5. Check energy absorption of the product.
6. Typical temperature flow chart IAT – see chart below.



3.2. Processing measurements- lab scale environment

Powder pick-up temperature (°C)	65 - 75
Optimum PIAT (°C)	120
Demolding temperature (°C)	85 – 90
Dry flow	Good
Thickness distribution	Excellent

General remark : All moulders should test these products before starting large industrial runs – set PIAT at 120°C - increase or decrease temperature with 5°C according to the achieved mechanical properties.

SECTION 4: General advice

4.1. General info

Beobase PE RTM186 is compatible with a wide variety of polyolefins some special sequences should be followed:

1. Before production, ensure to clean equipment and check oven temperature to a controlled condition.
2. Vacuum out any hopper/blending or other mixture equipment system to avoid contamination.
3. Introduce **Beobase PE RTM186** into the equipment at the operating conditions used in step 3.1.
4. Once **Beobase PE RTM186** is introduced check inner air temperature.
5. At shutdown, clean your equipment/machine with high viscosity cleaning material.

At higher temperature, the dwell time of the material inside the machine shall be reduced to a minimum in order to lower the risk of degradation. Do not leave the material hot inside the machine for long periods as the material will degrade.

4.2. Storage and drying conditions

We recommend to store the material in dry conditions below 50°C and protected from UV-light. Improper storage could lead to colour change and degradation.

4.3. Biodegradability and Compostability

Not applicable for this grade only Beograde is a biodegradable brandname of Beologic.

4.4. Recycling

The product is suitable for recycling by methods of shredding and cleaning.

SECTION 5: Drying and storage conditions

We recommend drying Beobase PE RTM186 at 60°C for 2 to maximum 4 hours. Don't overheat or dry it longer than recommended. Residual moisture content (> 0.2%) can result in lower melt stability, surface mark or bubble formation during processing.

We recommend to store the material in dry conditions below 50°C and protected from UV-light. Opened (big)bags should be used immediately or adequately sealed back up after use to avoid moisture uptake and have negative effects on the physical properties of the product. It is recommended to use **Beobase** granules within a time period of maximum 6 months.

Finished product made from Beobase should be stored dry and cold. Storage time and lifetime of finished products depends on processing parameters and on storage conditions (moisture, UV radiation …).