



# Beobase 10 PE cotton RTM034 blue

## Material Technical Data Sheet

Date of issue: 19/10/2021 Version: 2.0

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

#### 1.1. Product identifier

Product form	:	Powder
Name	:	Beobase 10 PE cotton RTM034 blue
Product code	:	1090020034
Application	:	Rotomoulding
Composition	:	10% cotton + 90% polyethylene and additives

#### 1.2. Details of the supplier of the material specification sheet

##### Manufacturer

Beologic  
Jolainstraat 44  
8554 Sint-Denijs  
[info@beologic.com](mailto:info@beologic.com)

### SECTION 2: Physical, mechanical and thermal properties

#### 2.1. Information on basic physical, mechanical and thermal properties

Properties <sup>(1)</sup>	Method	Typical Value	Unit
<b>Physical</b>			
Physical state		Solid	
Relative density	ISO 1183-1	0,91-1,01	g/cm <sup>3</sup>
MFI (190°C, 2.16 kg)	ISO 1133-1	2 - 2,5	g/10min
Coloured in mass		YES	
Colour		Blue	
UV package		NO	
Carbon footprint <sup>(2)</sup>	PAS 2050	2,1280	kg CO <sub>2</sub> Eq/ kg
Shelf life <sup>(3)</sup>		6	Months
<b>Mechanical</b>			
Tensile modulus	ISO 527	1030	MPa
Tensile strenght	ISO 527	16	MPa
Ultimate strain	ISO 527	7,8	%
Break stress	ISO 527	11	MPa
Elongation at break	ISO 527	86	%
Flexural modulus	ISO 178	676	MPa
Charpy impact strength (Notched 1eA , 23 °C)	ISO 179	12	kJ/m <sup>2</sup>
Vicat softening point (B120)	ISO 306	65-70	°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](http://www.v-c-s.org)).

#### 2.3. Other information

No additional information available



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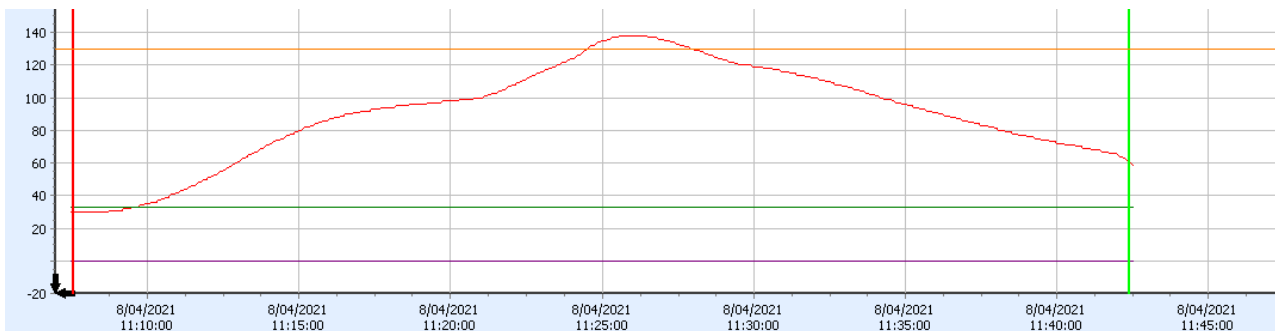
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### SECTION 3: Processing conditions-guidelines

#### 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

<b>Powder pick-up temperature (°C)</b>	65 - 75
<b>Optimum PIAT (°C)</b>	120
<b>Demolding temperature (°C)</b>	85 – 90
<b>Dry flow</b>	Good
<b>Thickness distribution</b>	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 10 PE cotton RTM034 blue** 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 10 PE cotton RTM034 blue** into the equipment at the operating conditions used in step 3.1.
4. Once **Beobase 10 PE cotton RTM034 blue** 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.



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### SECTION 5: Drying and storage conditions

**We recommend drying Beobase 10 PE cotton RTM034 blue 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** 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 ...).