



# Beobase 05 PE cotton RTM029 black

## Material Technical Data Sheet

Date of issue: 13/03/2023 Version: 3.1

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

#### 1.1. Product identifier

<b>Product form</b>	: Powder
<b>Name</b>	: Beobase 05 PE cotton RTM029 black
<b>Product code</b>	: 0595020029
<b>Application</b>	: Rotomoulding
<b>Composition</b>	: 5% cotton + 95% LDPE 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	0,90-1,00	g/cm <sup>3</sup>
MFI (190°C, 2,16 kg)	ISO 1133-1	4-4,5	g/10min
Coloured in mass		NO	
Colour material		Black	
UV package		NO	
Carbon footprint <sup>(2)</sup>	PAS 2050	2,027*	kg CO <sub>2</sub> Eq/ kg
Shelf life <sup>(3)</sup>		6	Months
<b>Mechanical</b>			
Tensile modulus	ISO 527-1	470	MPa
Tensile strength	ISO 527-1	16	MPa
Break stress	ISO 527-1	13	MPa
Elongation at break	ISO 527-1	500	%
Flexural modulus	ISO 178	520	MPa
Charpy impact strength (Notched 1eA , 23 °C)	ISO 179-1	13	kJ/m <sup>2</sup>
Vicat softening point (B120)	ISO 306	67	°C

(1) Typical properties; not to be construed as specifications.

(2) Carbon footprint calculated by Neutrologic

(3) Only if storage conditions (section 5) were followed

\*Due to continuous variation of feedstock this figure reflects value of September 2022. Update latest carbon footprint available on request.

#### 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.

Neutrologic 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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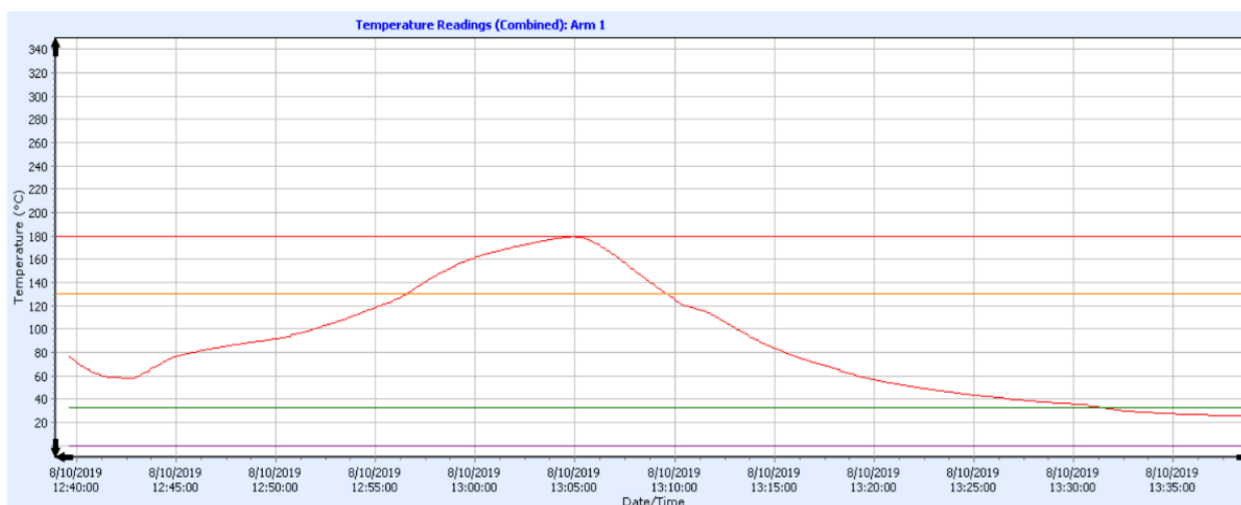
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### SECTION 3: Processing conditions-guidelines

#### 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 120°C – 130°C and gradually increase with step of 5°C to 165°C – 175°C.
3. PIAT ≤ 175°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>	165 - 175
<b>Demolding temperature (°C)</b>	60 - 70
<b>Thickness distribution</b>	Excellent

General remark : When moulding polyethylene containing natural fibres it is important to consider that excessive fast heating or high temperatures may cause the filler to degrade.

### SECTION 4: General advice

#### 4.1. General info

**Beobase 05 PE cotton RTM029 black** is not 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 on any hopper/blending or other mixture equipment system to avoid contamination.
3. Introduce **Beobase 05 PE cotton RTM029 black** into the equipment at the operating conditions.
4. Once **Beobase 05 PE cotton RTM029 black** is introduced, check inner air temperature.
5. At shutdown, clean your equipment and remove all remaining residue from the mall.

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.



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### SECTION 5: Drying and storage conditions

**We recommend drying Beobase 05 PE cotton RTM029 black at maximum 60°C for a period of 2 hours 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 powder 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 ...).