



## CHARACTERISTICS

**BIO-003** is an off grade of a thermoplastic material registered by Vincotte as compostable, within a maximum thickness according to EN 13432. The renewable content is 40% and the biobased content 32%. It is registered by Vincotte as home compostable.

**BIO-003** is suitable for blown and cast film extrusion, It can be processed in conventional equipment for PE. Corona treatment is not required.

## APPLICATIONS

**BIO-003** can replace PE in several applications as: carrier and refuse bags, shopping bags, agricultural mulching films, organic waste bags, fast food packaging, diaper and hygienic article packaging.

## GENERAL PROPERTIES

Renewable content 40%

Biobased content 32%

Compostability yes

Density 1,31 g/cc

MVR (190°C/2,16Kg)cc/10min <5

Melting temperature °C 120-150

Thickness of blow film 20 micron

## PACKAGING

octabins

## EXTRUSION PROCESSING

**BIO-003** may be processed on PE extrusion lines.

The following processing temperatures are recommended:

Feed section: <25°C

Barrel zones: 130/150/155../155°C

Adapter: 155°C

Die: 155°C

Melt temperature: 155°C

We recommend installing in the extruder screen packs having a mesh of 80-100 (177-150 microns).

We recommend use the lowest possible temperatures to minimize vapours and starch smell, however if needed it is possible to reach up to 160°C in polymer melt with good film properties.

In blown extrusion it is recommended a blow up ratio (BUR) of 1.8-3.0 and a cooling air temperature lower than 20°C.

Single cooling air or Internal bubble cooling (IBC) systems can be used.



In cast film extrusion it is recommended to use a casting temperature of 30-40°C.

Masterbatches used have to be compostable and used according to EN13432.

Films superficial tension is 34-36 mN/m, corone treatment is not needed before printing.

**BIO-003** has good sealing properties at 115-130°C.

Extrusion equipment is recommended to be purged with PE (MFI<5g/10min) before and after production with **BIO-003**, as it is important that extruded should not be stopped with **BIO-003** inside the barrels for long time.

### CONDITIONING

Films made of **BIO-003** will achieve their final properties (mechanical, permeability and coefficient of friction) after 7 days of production.

