



VERSION 1: 13/05/2025

## Technical Data Sheet

### ECOSTAR BIO BF10

#### Product Introduction

ECOSTAR BIO BF10 is a biodegradable thermoplastic material used for film blowing. Applications include packaging film articles such as bags and shoppers.

#### Typical Property

ECOSTAR BIO BF10 has similar mechanical and processing properties to LDPE. The listed values are measured by test specification and used for referential purpose only.

| <u>Product Properties</u> <sup>(1)</sup> | <u>Method</u> | <u>Test condition</u> | <u>Unit</u>       | <u>Value</u> <sup>(2)</sup> |
|--|---------------|-----------------------|-------------------|-----------------------------|
| <b>Granules</b>                          |               |                       |                   |                             |
| Melt Flow Rate                           | ISO 1183      | 190°C, 2.16 kg        | g/10 min          | 2.0-4.0                     |
| Specific Gravity                         | ISO 6188      | 23°C                  | g/cm <sup>3</sup> | 1.38-1.40                   |
| Melt Point                               | DSC           | -                     | °C                | 110-130                     |
| <b>Film Thickness 18µm</b>               |               |                       |                   |                             |
| Tensile strenght (MD/TD)                 | ISO 527       | 500 mm/min            | Mpa               | 18/14                       |
| Elongation at break MD/TD                | ISO 527       | 500 mm/min            | %                 | 200/450                     |
| Tear strenght MD/TD                      | ISO 6383/2    | 400 g                 | Mn                | 1050/700                    |
| Dart Drop                                | ISO 7765-1    | 25°C                  | G                 | 180                         |

(1) Tested with freshly blowing film, not to be construed as specifications.

(2) The listed values are measured by test specification and used for referential purpose only.



## Processing Information

**ECOSTAR BIO BF10** well packaged products can be used directly. If the package is damaged before use, the product should be dried prior to processing. Moisture levels above 1000 ppm may affect film-blowing operation; Effective drying takes place at 80°C for 5 hours. Processing parameters for blowing film:

|                         | <u>Temperature zone</u>      | <u>Set value<sup>(1)</sup></u> | <u>Range</u> |
|-------------------------|------------------------------|--------------------------------|--------------|
| Barrel zone temperature | Melt temperature             | 140° C                         | 130-150° C   |
|                         | Rear                         | 140° C                         | 130-150° C   |
|                         | Center                       | 145° C                         | 130-160° C   |
|                         | Front                        | 145° C                         | 130-160° C   |
|                         | Die Head Temperature         | 140° C                         | 130-150° C   |
|                         | Processing Temperature Limit | 180° C                         |              |

[1] The range value is just for reference. During the process, the parameter should be adjusted

## Quality Control

**ECOSTAR BIO BF10** the melt flow rate, MFR, at 190°C, 2.16 kg, according to ISO 1133 has been defined as specified parameter for quality control. A certificate can be provided with each lot number upon request. In order to obtain a high accuracy for the MFR measurement, the granules should be dried for 5 hours at 80°C. Other data given in our literature are typical values, which are not part of our product specification.

## Packaging and Storage

**ECOSTAR BIO BF10** is supplied in 900 kg PP big-bags with AL liner. Storage time is not suggested to be over 12 months under proper conditions in an unopened bag, the product should be used as soon as possible when the package is opened. Temperatures during transportation and storage may not exceed 60°C at any time. Use as soon as possible if the package had been broken.

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