

# M·VERA® GP1045 (B0217)

## Preliminary Technical Description



### Product Description

M·VERA® GP1045 (B0217): Biodegradable polyester compound for injection moulding

Applications: Coffee capsules, cutlery, etc.

Suitable for: Injection moulded parts

Certification: OK compost HOME - in progress (NF T51-800 [11-2015], certified by TÜV AUSTRIA Belgium)

### Properties\*

|                                    | Standard      | Unit                    | GP1045 (B0217) |
|------------------------------------|---------------|-------------------------|----------------|
| MVR 160 °C/5 kg                    | ISO 1133      | cm <sup>3</sup> /10 min | 10             |
| Density                            | ISO 1183      | g/cm <sup>3</sup>       | 1.20           |
| Renewable Content                  | -             | %                       | ~100           |
| Moisture**                         | -             | %                       | <0.06          |
| Tensile modulus                    | ISO 527-1/-2  | MPa                     | 2,000          |
| Tensile strength                   | ISO 527-1/-2  | MPa                     | 26             |
| Tensile strength at yield          | ISO 527-1/-2  | MPa                     | 26             |
| Elongation at yield                | ISO 527-1/-2  | %                       | 3              |
| Elongation at break                | ISO 527-1/-2  | %                       | 3              |
| Charpy impact strength             | ISO 179-1/1eU | kJ/m <sup>2</sup>       | 2              |
| Heat distortion temperature, HDT/B | ISO 75/B      | °C                      | 98***          |

**\*Remark:** The above listed properties were measured on specimen/material with moisture <0.1 %. The aforementioned information is only valid for M·VERA® grades in their original packaging, sold by BIO-FED® and/or its authorized partners. If M·VERA® grades are mixed in any capacity with foreign material, beside masterbatches recommended by BIO-FED, BIO-FED declines any further responsibility. M·VERA® grades shall be stored in dry, closed rooms in closed packaging in original state and to be protected against direct sun light not longer than 3 months. For keeping product properties, the recommended maximum temperature of 30 °C and the maximum humidity of 50 % shall not be exceeded. Products made of M·VERA® grades have to be stored under same conditions. All M·VERA® products can be colored with AF-Eco® biomasterbatches from AF-COLOR, also certified according to EN 13432. Please note that the use of AF-Eco® might influence the mechanical and/or optical properties of the final part.

\*\* Before packaging

\*\*\* at 60 °C mold temperature

The information contained herein is based on our current knowledge and experience. A legally binding promise of certain characteristics or suitability for a concrete individual case cannot be derived from this information. The information supplied here is not intended to release processors and users from the responsibility of carrying out their own tests and inspections in each concrete individual case. BIO-FED®, M·VERA® and AF-Eco® are registered brands of AKRO-PLASTIC GmbH.



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## Processing Guide

### Processing Recommendations

#### Safety Precautions:

- Melt temperature not higher than 165 °C
- Processing with adequate ventilation

#### Handling:

- Keep package sealed until use
- Reseal opened package of the M·VERA® product directly after use

#### Drying:

- Before use, material has to be dried at 80 °C for min. 5 h by using a vacuum dryer or purging with dry air (dew point -35 °C)

#### Delivery & Storage:

- Supply in 25 kg foil-aluminum bags or 1 ton octabin with PE-inliner
- To be stored in dry place, protected from heat and direct sun radiation

#### Start-up:

- Purge with polyolefin with MFR = 30 g/10 min for ~10 minutes
- Lower the temperature to recommended settings
- Start transition, when the temperature are within 10 °C of desired range

#### Equipment:

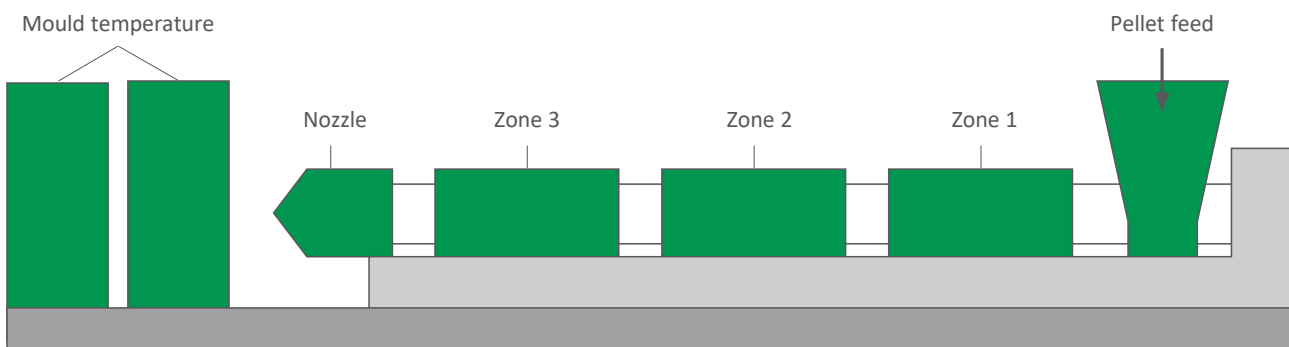
- M·VERA® grades are designed for standard equipment

#### Interruption & Shut-down:

- Never leave M·VERA® product in the extruder for a longer period, e.g. over night
- By interruption for a considerable time, slow down screw speed to 5 rpm approx.
- For a longer period, please purge with same polyolefin from start-up procedur

### Processing Temperatures

| Grade          | Mould Temp. | Nozzle     | Zone 3     | Zone 2     | Zone 1     |
|----------------|-------------|------------|------------|------------|------------|
| GP1045 (B0217) | 40–60 °C    | 140–150 °C | 140–150 °C | 130–140 °C | 130–140 °C |



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