

M·VERA® F4001 (B0088)

Preliminary Technical Description



Product Description

M·VERA® F4001(B0088): Biodegradable polyester compound for 3D printing

Certification: OK compost INDUSTRIAL – in progress (EN 13432, certified by TÜV AUSTRIA Belgium)

Properties*

	Standard	Unit	F4001 (B0088)
MVR 190 °C/2.16 kg	ISO 1133	cm ³ /10 min	2–5
Density	ISO 1183	g/cm ³	1.24
Moisture**	-	%	<0.1
Tensile modulus	ISO 527 -1/-2	MPa	2,500
Tensile strength	ISO 527 -1/-2	MPa	30
Elongation at break	ISO 527 -1/-2	%	45

** before packaging

***Remark:** 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.

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.



BIO-FED

Branch of AKRO-PLASTIC GmbH

BioCampus Cologne · Nattermannallee 1
50829 Cologne · Germany
Phone: +49 221 888894-00
Fax: +49 221 888894-99
info@bio-fed.com · www.bio-fed.com

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Processing Guide



Processing Recommendations

Safety Precautions:

- Processing at a temperature not higher than 200 °C
- Processing with adequate ventilation

Handling:

- Delivered with ready-to-use moisture content
- Keep package sealed until use
- Reseal opened package of the M·VERA® product directly after use

Drying:

- In case the M·VERA® product becomes too humid, drying at 80 °C for 4 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 = 6 g/10 min for ~10 minutes
- Lower the temperature to recommended settings
- Start transition, when the temperature are within 10 °C of desired range

Extrusion Equipment & Parameters:

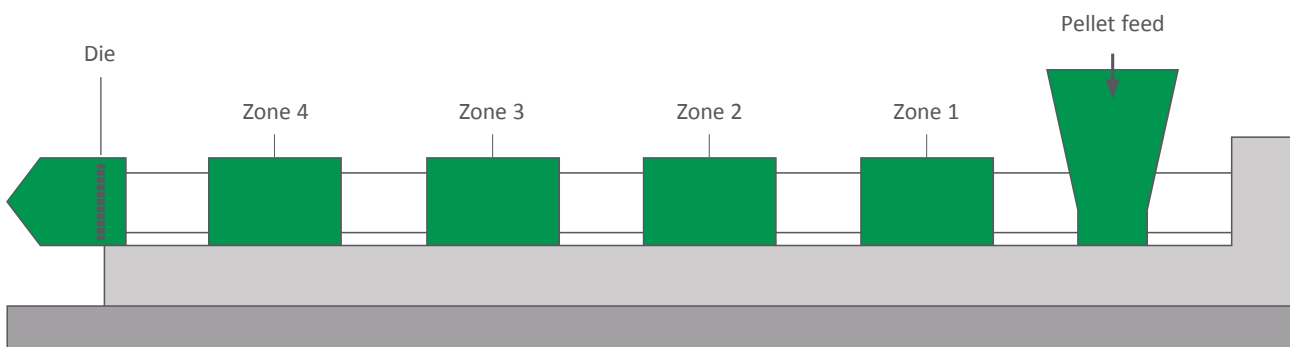
- Designed for standard extrusion lines
- Die gap: 0.5–1.6 mm
- Dual-lip air ring recommended, also IBC if possible
- Chilled air supply leads to more stable bubble on higher output rates

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 procedure

Processing Temperatures

Grade	Die	Zone 4	Zone 3	Zone 2	Zone 1
GP4004	170 °C	165 °C	165 °C	165 °C	165 °C



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