

M-VERA® GP1041 (B0210)

Preliminary technical description

Product description

M-VERA® GP1041 (B0210):	Biodegradable polyester compound for injection moulding
Applications:	Toys, Rigid packaging, Goods, where transparency is required
Suitable for:	Injection moulded parts
Certification:	OK compost INDUSTRIAL (EN 13432, certified by TÜV AUSTRIA Belgium)

Properties

	Standard	Unit	GP1041 (B0210)
MVR 160 °C/5 kg	ISO 1133	cm ³ /10 min	30
Density	ISO 1183	g/cm ³	1.24
Renewable content in the polymer	-	%	~100
Tensile modulus	ISO 527-1/-2	MPa	3,500
Tensile strength	ISO 527-1/-2	MPa	61
Yield strength	ISO 527-1/-2	MPa	61
Elongation at yield	ISO 527-1/-2	%	2.3
Elongation at break	ISO 527-1/-2	%	3.8
Charpy notched impact strength	ISO 179-1/1eA	kJ/m ²	1.8
Charpy impact strength	ISO 179-1/1eU	kJ/m ²	18
Heat distortion temperature, HDT/B	ISO 75/B	°C	50-115

* depends on mould temperature and post-injection moulding annealing process

The information given here 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. For keeping the product properties, the material must be protected against direct sun and the temperature must not exceed 50 °C at any time during transport and storage. M-VERA® grades have a remaining shelf life of six (6) months at room temperature (23 °C) from the delivery date. We recommend that products made of M-VERA® grades shall be stored under same conditions. All M-VERA® products listed here can be colored with AF-Eco® masterbatches 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.



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Preliminary processing guide

Processing recommendations

Safety precautions:

- Processing at a melt temperature not higher than 230 °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)
- Recommended humidity below 0.1 %

Delivery & storage:

- Supply in 25 kg foil-aluminium 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 while purging the screw, when the temperatures are within 10 °C of desired range

Equipment:

- M·VERA® grades are designed for standard equipment
- For some applications a mould release agent might be needed (If this is the case please contact your BIO-FED representative).

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	Mould temp.	Nozzle	Zone 3	Zone 2	Zone 1
GP1041 (B0210)	<40 °C*	175–195 °C	175–195 °C	175–195 °C	175–195 °C



*For a higher HDT the material can be injected in hot mould but longer cycle times will be required. Please contact BIO-FED for more information.



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