

## Typical Properties of Biodegradable M·VERA® Film Compounds

	Unit	M·VERA® B5019 (B0041)	M·VERA® B5027 (B0153)	M·VERA® B5029 (B0155)	M·VERA® B5033 (B0152) <sup>a</sup>	M·VERA® B5037 (B0183)	M·VERA® B5039 (B0186)	M·VERA® B5041 (B0190) <sup>a</sup>	M·VERA® BR5002 (B0123) <sup>a</sup>
Food contact approval EU 10/2011	-	√ <sup>f</sup>	√ <sup>f</sup>	√ <sup>f</sup>	√ <sup>f</sup>	√ <sup>f</sup>	√ <sup>f</sup>	√ <sup>f</sup>	√ <sup>f</sup>
Certificates	-	OK compost INDUSTRIAL	OK compost INDUSTRIAL	OK compost INDUSTRIAL	OK compost HOME	OK compost INDUSTRIAL	OK compost INDUSTRIAL	OK compost INDUSTRIAL <sup>e</sup>	OK compost INDUSTRIAL
Biobased carbon content <sup>c</sup>	%	n.a.	n.a.	n.a.	>50	n.a.	n.a.	>60	>40
Density	g/cm <sup>3</sup>	1.23	1.45	1.41	1.30	1.51	1.45	1.28	1.35
Transparency	-	translucent	opaque	opaque	opaque	opaque	opaque	opaque	translucent
MVR (190 °C/2.16 kg)	cm <sup>3</sup> /10 min	2–5	2–5	2–5	1–5	1–5	1–5	1–5	2–5
Tensile modulus <sup>d</sup>	MPa	1,150/470	410/230	380/175	250/150	175/160	150/145	520/310	295/115
Tensile strength <sup>d</sup>	MPa	21/30	18/17	25/30	19/20	22/22	30/31	20/15	25/27
Elongation at break <sup>d</sup>	%	210/350	240/380	410/480	350/550	505/510	525/550	180/350	370/540
Tear strength (ISO 6383)	N/mm	12/20	125/50	105/48	200/250	150/170	105/145	100/30	145/45

<sup>a</sup> product in development, preliminary data   <sup>b</sup> certification in progress   <sup>c</sup> ISO 16620; TC   <sup>d</sup> according ISO 527-3; values were determined on 25 µm blown film samples (BUR 1:3) and given in MD/TD; MD = machine direction; TD = transversal direction   <sup>e</sup> certification possible   <sup>f</sup> available on request  
n.a. = not applicable

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 and to be protected against direct sun. For keeping the product properties, the temperature must not exceed 50 °C at any time during transport and storage. Furthermore, the storage time must not exceed 6 months at room temperature (23 °C). Products made of M·VERA® grades have to 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.



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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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	Unit	M·VERA® A5001 (B0090)	M·VERA® A5002 (B0141) <sup>a</sup>	M·VERA® A5003 (B0162)
Food contact approval EU 10/2011	-	√ <sup>f</sup>	√ <sup>f</sup>	√ <sup>f</sup>
Certificates	-	OK compost INDUSTRIAL	OK biodegradable SOIL	OK compost INDUSTRIAL <sup>e</sup>
Biobased carbon content <sup>c</sup>	%	n.a.	n.a.	n.a.
Density	g/cm <sup>3</sup>	1.40	1.26	1.33
Transparency	-	opaque	opaque	opaque
MVR (190 °C/2.16 kg)	cm <sup>3</sup> /10 min	2–5	2–5	2–5
Tensile modulus <sup>d</sup>	MPa	380/170	310/170	320/155
Tensile strength <sup>d</sup>	MPa	25/30	26/35	30/40
Elongation at break <sup>d</sup>	%	410/470	390/540	450/455
Tear strength (ISO 6383)	N/mm	100/50	150/70	105/33

<sup>a</sup> product in development, preliminary data   <sup>c</sup> ISO 16620; TC   <sup>d</sup> according ISO 527-3; values were determined on 25 µm blown film samples (BUR 1:3) and given in MD/TD; MD = machine direction; TD = transversal direction   <sup>e</sup> certification possible   <sup>f</sup> available on request   n.a. = not applicable

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