Typical Properties of M·VERA® Biocompounds for Extrusion and Thermoforming

	Unit	M·VERA® GP4001 (B0148)[a]	M·VERA® GP4003 (B0219)[a]	M·VERA® GP4004 (B0165)	M·VERA® GP4005 (B0242)[a]	M·VERA® GP4006 (B0241)[a]
Food contact approval EU 10/2011	-	√[f]	√[f]	√[f]	√[f]	√[f]
Certificates	-	OK compost INDUSTRIAL	OK compost INDUSTRIAL	OK compost INDUSTRIAL[i]	OK compost INDUSTRIAL	OK compost INDUSTRIAL[i]
Renewable content in the polymer	%	~70	~50	n.a.	~100	~80
Density	g/cm³	1.40	1.32	1.41	1.25	1.25
MVR (190 °C/2.16 kg)	cm³/10 min	2–5	2–5	2–5	2–8	2–5
Tensile modulus[c]	MPa	2,650	1,850	370/185[e]	2,150	1,800
Tensile strength[c]	MPa	34	25	27/28[e]	34	32
Tensile stress[c]	MPa	34	25	-	32	32
Elongation at yield[c]	%	3.1	2.5	-	2.8	3.4
Elongation at break[c]	%	30	25	400/460[e]	9	40
Dart-drop Impact Test[d] $Force_{max}$ @ 23 °C	N	1,030	1,080	-	72	840
Dart-drop Impact Test[d] $Energy_{max}$ @ 23 °C	J	3.7	6.3	-	0.15	2.2
Dart-drop Impact Test[d] $Deformation_{max}$ @ 23 °C	mm	7.6	10.9	-	4.5	6.2
Dart-drop Impact Test[d] $Force_{max}$ @ 4 °C	N	1,070	1,560	-	65	1,223
Dart-drop Impact Test[d] $Energy_{max}$ @ 4 °C	J	2.7	8.4	-	0.11	3.2
Dart-drop Impact Test[d] $Deformation_{max}$ @ 4 °C	mm	5.7	8.4	-	0.9	6.3

[a] product in development, preliminary data [b] certfication in progress [c] ISO 527-3; determined in MD on 0.8 mm thick test specimens [d] ISO 6603-2 (4,4 m/s) [e] in MD/TD; (MD) = Machine direction; (TD) = Transversal direction [f] available on request [i] certification possible
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. 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.

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