# Typical Properties of Biomass-balanced M·VERA® Polypropylene Compounds

| | Unit | M·VERA® PPH2000 | M·VERA® PPH4000 | M·VERA® PPH4001 | M·VERA® PPC6000 | M·VERA® PPH6000 | M·VERA® PPH6001 |
|---|---|---|---|---|---|---|---|
| **Food contact approval EU 10/2011** | - | √[d] | √[d] | √[d] | √[d] | √[d] | √[d] |
| **Certificates** | - | ISCC PLUS; REDcert² | ISCC PLUS; REDcert² | ISCC PLUS; REDcert² | ISCC PLUS; REDcert² | ISCC PLUS; REDcert² | ISCC PLUS; REDcert² |
| **Allocation factor[a]** | % | 100 | 100 | 100 | 90 | 100 | 100 |
| **Density** | g/cm³ | 0.905 | 0.905 | 0.905 | 0.905 | 0.905 | 0.905 |
| **MVR (230 °C/2.16 kg)** | cm³/10 min | 3.5 | 490 | 21 | 3.9 | 13 | 55 |
| **Tensile modulus[b]** | MPa | 1,700 | 1,540 | 1,370 | 1,350 | 1,550 | 1,650 |
| **Tensile strength at yield[b]** | MPa | 37 | 35 | 33 | 25 | 34 | 35 |
| **Elongation at yield[b]** | % | 7 | 9 | 10 | 6 | 9 | 9 |
| **Charpy notched impact strength +23 °C[c]** | kJ/m² | 6 | 1.5 | 4 | 15 | 3.5 | 2 |
| **Charpy notched impact strength -20 °C[c]** | kJ/m² | n.a. | n.a. | n.a. | 6.5 | n.a. | n.a. |
| **Suitable for** | - | Extrusion, BOPP films | Fiber applications (e.g. melt blown) | Staple fibers, continous filaments, non-wovens | Injection moulding (e.g. luggage, bins, crates, technical parts) | Injection moulding (e.g. thin wall packaging) | Injection moulding (e.g. thin wall packaging and containers with excellent transparency) |

[a] The allocation factor is the percentage of biomass allocated to the product (max. value: 100%) = percentage of replaced fossil based resources in the value chain. The allocation factor does not indicate how much biomass is actually in the product. It refers to the organic content (e.g. polymers) in the product. [b] ISO 527-1/-2 [c] ISO 179-1/1eA [d] 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 12 months. Products made of M·VERA® grades have to be stored under same conditions. Please note that the use of masterbatches might influence the mechanical and/or optical properties of the final part.

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