

## Typical properties of M-CYCLOSE® recycling plastic compounds

	Unit	M-CYCLOSE® rPELD 050 nat	M-CYCLOSE® rPE 068 UBQ10 nat	M-CYCLOSE® rPE 055 UBQ20 nat	M-CYCLOSE® rPE 044 UBQ30 nat	M-CYCLOSE® PPH 280 UBQ30 nat
Appearance	-	green translucent	grey	dark grey	dark grey	dark brown
Recycled content	%	100	>98	>98	>98	30
Source	-	PCR	PCR	PCR	PCR	PCR
Density	g/cm <sup>3</sup>	0.95	0.97	0.99	1.03	0.99
MFR (190 °C/2.16 kg)	g/10 min	5.0	6.8	5.5	4.4	28 <sup>d</sup>
Tensile modulus <sup>b</sup>	MPa	237	950	1,150	1,200	1,800
Tensile strength at yield <sup>b</sup>	MPa	11.2	20	19	17	23
Elongation at yield <sup>b</sup>	%	66	10	9	8	5
Elongation at break <sup>b</sup>	%	132	11	10	9	12
Charpy notched impact strength +23 °C <sup>c</sup>	kJ/m <sup>2</sup>	56.7	57	38	25	19
Charpy unnotched impact strength +23 °C <sup>c</sup>	kJ/m <sup>2</sup>	no break	3.5	4.1	4.0	2.1
Suitable for	-	Blend partner for blown film extrusion, injection moulding, extrusion, blow moulding	Injection moulding (Consumer goods, boxes, technical parts etc.)	Injection moulding (Consumer goods, boxes, technical parts etc.)	Injection moulding (Consumer goods, boxes, technical parts etc.)	Injection moulding (Consumer goods, boxes, technical parts etc.)

<sup>a</sup> 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. <sup>b</sup> ISO 527-1/-2 <sup>c</sup> ISO 179-1/1eA <sup>d</sup> MFR (230°C/2.16 kg)

The information given here is only valid for M-CYCLOSE® grades in their original packaging, sold by BIO-FED® and/or its authorized partners. If M-CYCLOSE® grades are mixed in any capacity with foreign material, beside masterbatches recommended by BIO-FED®, BIO-FED® declines any further responsibility. M-CYCLOSE® 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-CYCLOSE® grades have a remaining shelf life of twelve (12) months at room temperature (23 °C) from the delivery date. We recommend that products made of M-CYCLOSE® grades shall be stored under same conditions. All M-CYCLOSE® products listed here can be colored with AF-Color® and AF-Carbon® masterbatches from AF-COLOR. Furthermore AF-Complex® additive masterbatches are available. Please note that the use of masterbatches might influence the mechanical and/or optical properties of the final part.



**BIO-FED**

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