



ecovio[®] M for Mulch Film

Biodegradable Compound for Agricultural Mulch Film Applications

ecovio[®] M2351 is our new biodegradable compound for film extrusion based on our biodegradable copolyester ecoflex[®] F Blend. Due to its outstanding mechanical strength ecovio[®] M offers high down-gauging potential for thin agricultural or horticultural film applications such as mulch film, cover film, and silage film. The ready-made compound already contains anti-blocking agents and allows easy processing as a drop-in solution on standard PE lines. The processing of ecovio[®] M on extrusion lines depends on the formulation, the extrusion technology and processing conditions.

ecovio[®] M is suitable for the production of black, transparent, and colored mulch films. ecovio[®] M film can be tailored to different crop cycles and climate conditions.



Biodegradable



Partly bio-based



Drop-in solution/
easy processing
on standard PE lines



High
down-gauging
potential



Environmental
benefits



Economic
benefits



ecovio® M offers environmental and economical benefits

ecovio® M allows the total costs of application to be reduced. Thanks to its biodegradability there is no need to collect the mulch films after harvest, saving time and the cost of collection. The actual cost saving potential, however, depends on further factors such as crop type and the thickness of the material.

ecovio® M has a similar structure to naturally occurring polymers. Microorganisms therefore process ecovio® M molecules just like the macromolecules present in nature and in soil, leaving behind biomass, water and carbon dioxide. The biodegradation process in soil depends on the specific environment (climate, soil quality, population of microorganisms).

Biodegradable plastics from BASF

Under the brand name ecovio® BASF offers biodegradable and compostable plastics that comply with European standard EN 13432 with regard to biodegradability, compostability, compost quality, and plant compatibility.

Properties of ecovio® M

- High strength, low-medium stiffness and high failure energy (dart drop)
- Good processability on conventional blown film lines
- Down-gauging up to 8 µm possible, typical thicknesses: 10 - 120 µm
- High melt strength: MVR (190 °C, 5 kg): 6.0 - 11.0 ml/10 min
- Good thermostability during processing up to 230 °C
- Mass density, ISO 1183: 1.37 - 1.40 g/cm³

Typical properties of ecovio® M blown film, 12 µm

Property	Unit	Test Method	ecovio® M2351
Tensile modulus	MPa	ISO 527	260/130
Tensile strength	MPa	ISO 527	25/20
Ultimate strength	MPa	ISO 527	22/18
Ultimate elongation	%	ISO 527	180/380
Dart drop	g	ASTM D 1709 Method A	200



For **more information** on ecovio® M, please contact:

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