

Mulch Films

ecovio® M 2351 – plastic compound for soil-biodegradable mulch films



For agricultural use, BASF offers the certified soil-biodegradable ecovio® M 2351 for mulch films. The compound consists of the biodegradable co-polyester polybutylene adipate terephthalate (PBAT) ecoflex®, other biodegradable polymers made from renewable raw materials and inorganic fillers. Mulch films made of ecovio® M 2351 can remain in the soil and ploughed in after mechanical harvest: Farmers do not have to laboriously remove and recycle them. Naturally occurring soil microbes like bacteria or fungi recognize the structure of the film as food they can metabolize. The remaining end products after biodegradation are CO₂, water and biomass (mass from natural living organisms, e.g. cells).

With the registration number 9X0001, ecovio® M 2351 has been certified as the first material for soil-biodegradable mulch films in accordance with the European standard EN 17033.

Key technical benefits

- Due to its very good mechanical properties, ecovio® M 2351 can be used to make mulch films with layer thicknesses of 12, 10 and 8 µm.
- ecovio® M 2351 is a ready-to-use compound that can be processed on conventional machines used for the extrusion of polyethylene films without any additional lubricants or anti-block agents.
- With ecovio® M 2351, black mulch films can be manufactured. Compatible masterbatches are available.

Sustainability benefits

- The fundamental benefits of mulch films made of ecovio® for sustainable agriculture are increased yield, less herbicides, water savings and earlier harvesting.
- Farmers have also observed a higher level of resistance of their plants to fungal diseases, a more homogeneous quality of harvest, and better-tasting crops.
- The responsibility for maintaining yield stability of agricultural land is of major social importance. This is why extensive internal and external studies not only verified the biodegradability of mulch films made of ecovio® M 2351, but also identified and analyzed the microbes in the soil (bacteria and fungi) that are involved in biological degradation.



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Note

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