

# BIODEGRADABLE GREENHOUSE FILM



## BIODEGRADABLE GREENHOUSE FILM FOR SUSTAINABLE FARMING

A biodegradable material, based on PHA, is transformed using a blow film extrusion process to create a transparent greenhouse film (100cm wide double layer cut on one side, resulting to 200cm width). Designed for sustainability, it ensures environmental benefits by naturally breaking down in soil, making it an eco-friendly choice for agricultural applications.

### WHAT IS PHA?

Natural PHA (Polyhydroxyalkanoate) is a family of biodegradable, water-insoluble biopolymers. Serving as a renewable, carbon-based alternative to fossil-fuel plastics, PHAs offer a compostable and marine-safe solution for various applications, including packaging and agricultural uses. With properties similar to traditional plastics, these eco-friendly polyesters support a circular economy by reducing plastic waste and contributing to sustainable, bio-based product systems.

### BENEFITS



recyclable



biodegradable  
in soil



plastic free

### WASTE DISPOSAL PATHWAY

These greenhouse films are engineered to be both recyclable and biodegradable in various environments, offering a sustainable solution for agricultural use while minimizing environmental impact.



### TARGET LITTER

Substitutes conventional PE green house films, which degrade into plastic pieces and microplastics that accumulate in the soil and rivers.



### IMPACT

Reduces microplastics in soil caused by fragmentation of greenhouse films, promoting a cleaner, healthier environment.



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## TARGET AUDIENCE

Agricultural sector (farmers, wholesalers)



## APPLICATION CASES

Greenhouse films for small (0,5m) greenhouse tunnels



## IMPLEMENTATION STEPS

Standard procedures, as with conventional greenhouse films.



## THINGS TO MONITOR

Appearance, quality, ease of application, soil degradation, durability



## CONTRIBUTION TO THE INSPIRE PROJECT

The INSPIRE project, funded by the European Union's Horizon program, is a pioneering initiative aimed at contributing to the drastic reduction of litter, macro and microplastics in European rivers in a holistic approach by utilizing a series of detection, collection and prevention technologies and actions. This solution directly reduces microplastics accumulation in the environment. Learn more at <https://inspire-europe.org/>

## CONTACT

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