

# BREAKING DOWN YOUR BIODEGRADABLE PACKAGING OPTIONS

## WE MAKE IT EASY TO CHOOSE THE RIGHT BIODEGRADABLE PACKAGING OPTION

We offer several biodegradable packaging options:

- Polyethylene blends extruded by Emmerson Packaging
  - Roll stock
  - SmartPack™ (roll stock and pre-made stand up pouch)
- PET/PE lamination
  - Roll stock
  - Pre-made pouches and quad bags

Typical property values for standard (non-biodegradable) packaging and its biodegradable counterpart are virtually identical. This means that there is no reduction in efficiency as a result of the biodegradable status. The transition between the two structures is seamless at every stage of production.

## HOW BIODEGRADATION WORKS

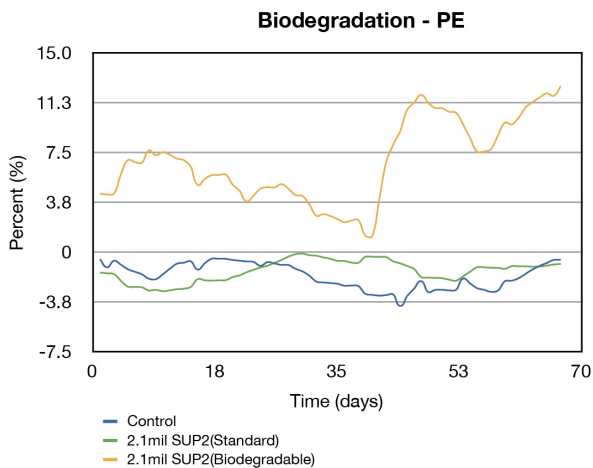
We provide a biodegradable options for our polyethylene films that allows them to biodegrade in landfills. The following demonstrates the steps in the biodegradation process:

- Our biodegradable packaging is completely shelf-stable, and only degrades in the unique conditions of a landfill, even if the contents of the package are moist
- Once in a microbe-rich environment like a landfill, the package attracts microbes to the surface
- A layer, rich in microbes and moisture, forms on the surface of the package
- Accumulates on the surface expand the polymer molecules and give the microbes access into the film molecules
- The microbes degrade the packaging into methane, carbon dioxide and inert humus (which makes the soil richer)
- During this process, the microbes attract more microbes to speed up the biodegradation process

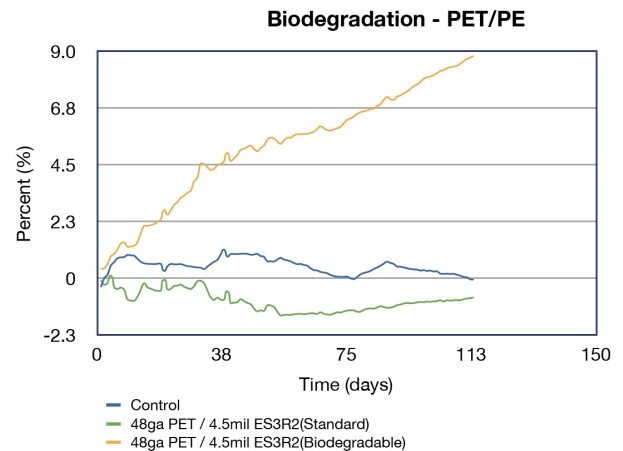


# TESTING RESULTS

our biodegradable film structures have been fully tested to verify that the film is biodegrading compared with its non-biodegradable counterpart. Third-party testing was conducted according to ASTM D5511. The results confirm that both the unsupported PE and the PET/PE lamination are biodegrading at rates that comply with ASTM D5511.



**2.1mil PE testing confirms 12.5% biodegradability after 67 days.**



**48ga PET/PET at 4.5mil testing confirms 8.8% biodegradability after 113 days.**

Emmerson Packaging has biodegradable options that allow for a seamless transition for your current packaging without sacrificing appearance, recyclability, efficiencies during production, or performance and integrity at any point throughout the life of the product.

**Contact us today to learn more about your biodegradable packaging options.**