

how does P-Life work?

P-Life Oxo-biodegradable plastics undergo two-step degradation.

Step 1 "Oxidative Degradation"

P-Life Oxo-Biodegradable Plastics start to degrade once they are disposed in the natural environment after completion of their lifetime as plastic products. It is called Oxidative Degradation enhanced by P-Life catalytic reaction. As a result of this, the oxidative reaction leads to a chain scission of the polyolefin polymers matrix and the production of low molecular mass oxidative products such as carboxylic acids, alcohol etc.




Step 2 "Biodegradation"

The low molecular mass oxidation products in the process of degradation Step 1 are going to be bio-assimilated gradually in soil or a bio-active composting environment. It is called Biodegradation (or Mineralization). Finally, they are converted into CO₂, H₂O and biomass as the final remnant.



has P-Life been tested?

P-Life has been extensively tested to ensure that it functions correctly. SP Technical Research Institute of Sweden ("SP") performed SP Method SPCR 141 Appendix 4 "Polymeric Waste degradable by abiotic and subsequent biological degradation (A + B Degradation)-Requirements and test Methods." SP concluded that the test material (LDPE film containing P-Life) fulfills all the requirements of SPCR 141 appendix 4, which is in accordance with ASTM D6954. P-Life successfully passed Tier 1, 2 and 3 testing.

-  Tier 1
Loss of mechanical strength occurs after 10 days at 65C and Mw is below 10000
-  Tier 2
Biodegradability reaches 91% within 24 months in soil and still increasing.
-  Tier 3
Germination and biomass is ≥ 90% for all plants compared to controls.

product application

- Retail:**
Shopping Bags, Garbage Bags, Courier Bags, Food Waste Bags
- Food and Beverage:**
Food Trays, Drink Bottles, Cups, Cutleries, Straws
- Packaging:**
Loose Fills, Bubble Packs, Stretch Films, Shrink Films, Cosmetics
- Others:**
Seedling Bags, Flower Pots, Agricultural Films

a few of our customers



P-Life is sold around the world.

The following are countries that have officially endorsed the benefits of Oxo's and or are introducing legislation to make them law:

- | | | | |
|---|---------------|---|------------|
|  | Albania |  | Mexico |
|  | Argentina |  | Montenegro |
|  | Brazil |  | Morocco |
|  | Cameroon |  | Pakistan |
|  | Cote d'Ivoire |  | Serbia |
|  | D.R. Congo |  | Singapore |
|  | Ecuador |  | Slovenia |
|  | Ghana |  | Togo |
|  | Iran |  | UAE |
|  | Mali |  | Vietnam |
|  | Mauritania |  | Yemen |

THE WORLD'S **ONLY PROVEN** OXO-BIODEGRADABLE PLASTIC ADDITIVE

POSITIVE RECYCLING RESULTS

100% FULLY BIODEGRADABLE
CERTIFIED IN SPCR 141 APPENDIX 4 IN
ACCORDANCE WITH ASTM D-6954

P-Life®

what is P-Life?

P-Life is a proprietary additive technology that makes polyolefin polymers, considered as non-biodegradable polymers, into Oxo-Biodegradable polymers. P-Life is a specially formulated proprietary mixture of catalysts with following features:



Dosage Level:
0.3%~1% against let down polyolefin polymers (PE, PP).



Blending:
Blended directly with resin pellets in a converting stage.



Ingredients:
Registered in FDA, Complies with RoHS Directive.

P-Life comes in master batch pellet form and is customizable with the exact concentration of additive necessary to accommodate your product's intended shelf life. In this form it is very easy for blow-molders and injection-molders to work with. They simply mix it in with other processing aids in the extruder directly after the reactor. It is then blow-molded or injection-molded as normal into the desired product.

