

IDEALPAK's Biodegradable Packaging with d2w



What's d2w?

d2w is an oxo-biodegradable additive that can turn the conventional plastic into a biodegradable material with a different molecular structure. Only adding 1% of d2w can make the difference.



d2w Technology

- 1 During their predetermined shelf life and service life, biodegradable packaging with d2w will maintain their original properties.
- 2 At the end of their service life, they behave like other conventional plastic if they are recycled.
- 3 In case not collected by the recycling facilities, they will degrade and biodegrade (eventually consumed by microorganisms) in the open environment with the presence of oxygen.



d2w-How does it work?

The OXO-Biodegradation Process

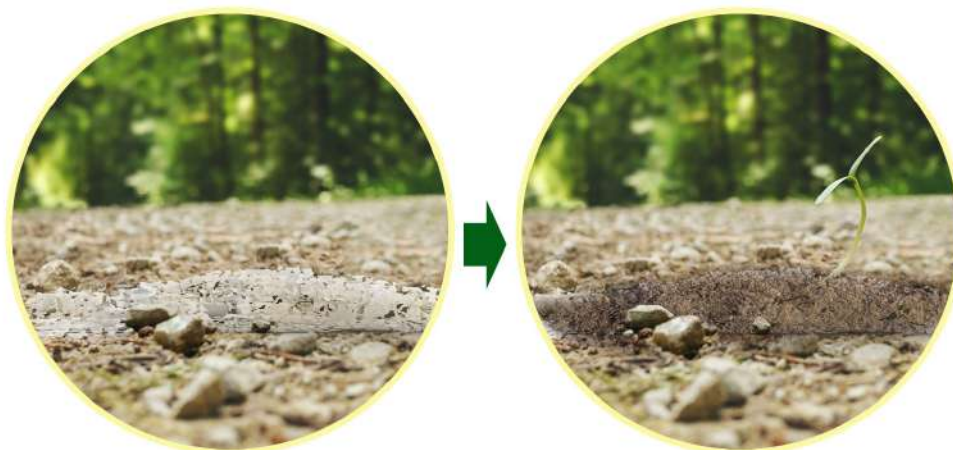
Step 1



Step 1: Chemical Degradation of the Polymer (achieved through the control of d2w)
d2w causes the molecular structure of plastic to break down when exposed to heat or sunlight.

Required external conditions: UV radiation, heat, mechanical stress and oxygen

Step 2



Step 2: The Biodegradation (achieved through the consumption of the residual material by the microorganism)

The residual material produced in step 1 will eventually become carbon dioxide, water and biomass.

Required external conditions: sufficient oxygen

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Added Value with d2w

- Requires only 1% inclusion rate.
 - Works with virgin and recycled plastic.
 - Works with PE & PP as well as all their co-polymers and polymer derivatives.
 - No change to the manufacturing process.
 - Does not lose any of its original properties during its useful life.
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Applications of Biodegradable Packaging with d2w

- HDPE/LDPE bottles and jars
- HDPE/LDPE closures
- PP bottles and jars
- PP closures



Advantages of Biodegradable Packaging with d2w

- 1) Can and should be recycled.
- 2) Comply with international standards—ASTMD6954 and other standards.
- 3) Will degrade in case not collected by the recycling facilities, avoiding long-term harm to the environment.



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ACT GREEN
LIVE GREEN**

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