Cast Away®

eco-smart™

truly biodegradable plastic

Many of our plastic products are now **biodegradable!** Truly, the smart choice for sustainability.

- **Biodegradable in a modern landfill**
- **Recyclable**
- **Australian made in HACCP accredited facilities**

Truly biodegradable plastic - the smart choice for sustainability

Eco-Smart™ allows plastic to biodegrade* through a series of chemical and biological processes when disposed of in a microbe-rich landfill environment.

eco-smart™ + 

EcoSmart™ is blended with plastic, then turned into consumer products right here in Australia!

Managed Landfill = Biodegration

EcoSmart™ allows microorganisms to break down the plastic, into natural bi-products.

Recycled

EcoSmart™ doesn't change the recycling process.

To find out more, visit: www.mpmmarketing.com.au

FTS006

MPM Marketing Services
Marketers of Disposable Food Packaging

Phone: 07 3853 5800
www.mpmmarketing.com.au

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How does Eco-Smart™ work?

Eco-Smart® accelerates the biodegradation* of treated plastics in microbe-rich environments, such as a biologically active landfill. Plastics treated with Eco-Smart® have unlimited shelf life and are completely non-toxic.

Adding Eco-Smart® to a petroleum based resin attracts microbes – microscopic organisms vital to the earth's ecosystem. These microbes colonise on the surface of the plastic where they secrete acids that break down the polymer chain, allowing them to utilise the carbon backbone of the chain as an energy source.

The difference between Eco-Smart® treated plastic and traditional plastic is that Eco-Smart® creates an opportunity for microbes to use plastic as food.

What is the manufacturing process for using additives?

Using the additive in the manufacturing process is easy to do and usually does not require any equipment modification.

Eco-Smart® is added via a standard commercial gravimetric hopper, just as you would add a colorant into the extruder feed-throat. Eco-Smart® is usually loaded at 0.7–4% by weight.

Are products made with Eco-Smart™ certified recyclable?

Currently there are no recognised standard certifications for recyclability.

A number of independent laboratories have been provided with samples of plastic made with Eco-Smart®. The tests indicated that Eco-Smart® does not affect the recyclability of plastics.

What prevents plastics made with Eco-Smart™ from degrading in inventory or on the shelf?

Eco-Smart® treated products must be disposed of or kept in active microbial environments, such as a managed landfill, in order to biodegrade*.

Warehouse and retail environments do not contain the microbes needed for biodegradation, so plastics treated with Eco-Smart® have an unlimited shelf life.

Does Eco-Smart™ change the physical characteristics of plastic?

There are no noticeable changes to the physical characteristics of plastic such as tensile strength, glass temperature, melting temperature, transition rates, etc.

Does Eco-Smart™ affect the plastic's performance at elevated temperatures?

No. Tensile strength and physical properties are maintained even in elevated temperatures.

In temperatures exceeding the normal operating range for a specific resin, Eco-Smart® plastics would experience the same change in properties as the standard untreated plastic.

Does Eco-Smart™ contain any heavy metals?

Eco-Smart® does not contain any compounds that would be considered heavy metals, light metals or metal ions.

Eco-Smart® is a combination of true organic compounds from oil and other nutrients found in the environment.

Does Eco-Smart™ contain microbes?

No. Eco-Smart® is an additive composed of organic compounds that attract microbes when placed into microbe-rich environments, such as managed landfill. There are no enzymes or microbes within the Eco-Smart® additive.

For more information, visit: www.mpmmarketing.com.au

*Biodegradation rates of Eco-Smart® treated plastic materials measured according to the ASTM D5511 test method. Tests are generally conducted using 20% to 30% solids content; solids content in naturally wetter landfills range from 55% to 65%, while the driest landfills may reach 93%. Actual biodegradation rates will vary in biologically-active landfills according to the type of plastic used, the product configuration, and the solid content, temperature and moisture levels of the landfill.

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