

BIO-CYLINDER™ FAQ'S

Deslauriers Bio-Cylinders™ are molded with a proprietary additive which allows plastic to bio-degrade when placed into an active landfill.

How does it work?

Almost everyone knows various plastics are called “synthetic” and they don’t break down easily in a normal environment, but why? Plastics are made from organic compounds called monomers. What makes plastic special and useful is that scientists found a way to combine monomers into long molecular chains, called polymers. Polymers do not exist in nature, and this is what makes plastic so useful. But it also creates an environmental problem; regular plastic is not easily bio-degradable and will last in the environment for centuries, maybe forever.

After the Bio-Cylinder™ has completed its useful life, it can be put into a landfill or a compost facility. There, the proprietary additive begins its work. It allows microbes to break down those “synthetic” polymer chains into organic monomers that they can feast on. It does this by expanding the molecular structure of the plastic, scissoring the polymer chain and adding in nutrients that attracts the microbes to colonize in and around the plastic. These microbes secrete acids which further break down the long molecules.

What happens to the plastic when it breaks down in a landfill?

Like any organic material that is bio-degraded, the plastic will create byproducts, most of which are useful, including humus (which can be used to make soil richer) and methane (which can be used as fuel). In fact, landfills all over the country are beginning to tap the methane from the natural breakdown of organic materials to reduce our dependence on foreign energy sources. This bio-degradation process can take place aerobically (where there is oxygen, such as in a compost facility) or anaerobically (where there is no oxygen, such as in a sealed landfill). It can take place with or without the presence of light, heat or moisture.

How long does it take for the cylinders to fully bio-degrade?

This is a function of part thickness, how active is the landfill, amount and availability of heat, moisture, light, etc. The point is, the Bio-Cylinder™ will biodegrade in a reasonable time as opposed to NEVER for standard plastics.

What is the difference from my plain old plastic molds?

Nothing! The Bio-Cylinder™ is molded from the same plastic, just with a proprietary additive, and to ASTM specifications. You can not see any differences, feel any differences, nor experience any performance differences. The physical properties of plastic products remain the same during their life. Only when disposed of does the difference manifest itself as bio-degradability.

Will the molds being to degrade in storage or shipment?

No! Degradation begins only when the molds are placed in a landfill. Shelf life is virtually unlimited.

Will the heat from concrete hydration or the sun affect the integrity and shape of the Bio-Cylinder™ ?

No! The Bio-Cylinder™ will react the same as standard plastic molds.

Are the molds brittle in cold temperatures?

No! The Bio-Cylinder™ will react the same as standard plastic molds.

Can the molds be recycled?

Yes! The Bio-Cylinder™ will react, be reprocessed, and be recycled as standard plastic molds.



For additional information, please contact our Customer Service Representatives
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