

*Pads made using 100% recycled PET plastic and specially formulated to rapidly biodegrade once discarded into an active landfill.*



## Frequently Asked Questions about Full Cycle<sup>®</sup> Product Line

**1. What is Full Cycle<sup>®</sup>?** Our goal is to produce products that perform to the highest standards while leaving the smallest possible impact on the environment. A leader in the Jan/San industry since 1969, our manufacturer has been producing floor pads with 100% recycled fibers for well over a decade. Completing the cycle, in 2014 we introduced an innovative floor pad technology that has been specially formulated to biodegrade in a fraction of the time once discarded into a landfill, compared to conventional pads. When consumers see the Full Cycle<sup>®</sup> label, they will know they have a quality product while reducing mankind's impact on the environment.

**2. When will Full Cycle<sup>®</sup> floor pads begin to biodegrade?** Full Cycle<sup>®</sup> pads will only begin the biodegradation process AFTER they have been discarded into an anaerobic microbial environment that exists in an active landfill.

**3. How will this new biotechnology change the product's performance?** This innovation does NOT modify our core pad formulation therefore, our products have the same high quality and product performance that customers have come to expect from Americo.

### **4. What is biodegradation?**

Biodegradation is defined in various ways, but essentially refers to the process by which organic materials are broken down into smaller compounds via the action of naturally

occurring microorganisms, ultimately ending up as biogas and a soil-like solid residue.

**5. Do traditional plastics biodegrade?** Yes, but it can take hundreds or possibly thousands of years for most plastic to biodegrade. Plastics have been designed for their physical properties, particularly their strength and resilience. Most plastics contain carbon atoms linked into long molecular chains. Although carbon is a great nutrient source for microorganisms, the long chains make it difficult to be metabolized by microorganisms. Full Cycle<sup>®</sup> pads have been specially formulated to biodegrade in a fraction of the time as traditional plastics.

**6. What prevents our pads from biodegrading before they are used and discarded?** Full Cycle<sup>®</sup> pads will only begin to biodegrade after being placed in an anaerobic (without oxygen) environment and in the presence of certain types of microorganisms that exist primarily in active landfills.

**7. How long does it take for Americo floor pads to biodegrade?** There are a number of factors which contribute to the length of time required to biodegrade our material in a landfill. These factors include the type of microorganisms present in the landfill, the level of microbial activity, temperature, and moisture levels. Biodegradation occurs in all active landfills at varying rates of time based on a combination of these factors.

# Full Cycle® – Frequently Asked Questions

**8. How can you prove the material biodegrades at all?** Full Cycle's technology promotes the biodegradation of traditional plastics in landfills as validated by independent, certified laboratories using the internationally recognized test method ASTM D5511.

D5511 testing shows up to 92.5% biodegradation of Full Cycle® floor pad in 616 days, as compared to 16.4% on our conventional pads. Laboratory tests, which represent optimized conditions, often show faster results than actual landfill conditions. The actual rate of biodegradation of Full Cycle® pads, as well as the rate of all plastic materials in landfills, will be slower and will vary, dependent upon actual landfill conditions., e.g., faster in wetter landfills than in arid ones.



Figure 1. (Profile View)

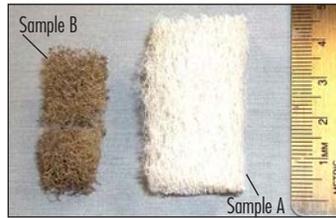


Figure 2. (Overhead View)

Samples A and B shown above were both taken from the same Full Cycle® floor pad. While Sample A was left untouched, Sample B was placed in an ASTM D5511 simulated landfill test for 290 days. Note the significant mass reduction via enhanced biodegradation in Sample B. *Photos courtesy of Eden Labs LLC.*

**9. What is ASTM D5511?** ASTM International, formerly known as the American Society for Testing and Materials, is a globally recognized leader in the development and delivery of international voluntary consensus standards. The ASTM D5511 test is a method that evaluates the biodegradability of plastic in anaerobic, or oxygen-less, conditions. It is a standard test method for determining the rate and extent of anaerobic biodegradation of plastic materials under high-solids, anaerobic-digestion conditions.

**10. Why do Full Cycle® pads biodegrade at a far faster rate than conventional pads?** The biodegradation of our Full Cycle® pads is enhanced through a series of new formulations. These new formulations are attracted to certain microorganisms that facilitate the breakdown of polymers and plastics used in our floor pads, resulting in an enhanced biodegradation process once the product is disposed of in an active microbial environment, such as a landfill.

**11. Will you have multiple floor pad lines (Full Cycle® and Standard)?** All of the standard floor pads produced by Americo are manufactured as Full Cycle® floor pads.

**12. Will there be any additional cost for Full Cycle® pads?** Our Full Cycle® pads are designed to provide optimal results without additional cost to our customers. We believe in absorbing the additional costs internally as taking eco-action is simply our corporate responsibility—and it's what sets us apart from other floor pad providers in our industry.

**13. Are Full Cycle® floor pads safe for the environment?** At no time during the biodegradation process is any toxic by-product produced.

For more information regarding Full Cycle® pads, visit [www.FullCyclePads.com](http://www.FullCyclePads.com).

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Full Cycle® Products are certified by Green Seal™ for Environmental Innovation based on faster biodegradation in landfill conditions and 100% recycled content/natural fiber. [GreenSeal.org/GS20](http://GreenSeal.org/GS20)

**California Notice:** California law prohibits the sale of plastic packaging and plastic products that are labeled with the terms 'biodegradable', 'degradable', or 'decomposable', or any form of those terms, or that imply in any way that the item will break down, biodegrade, or decompose in a landfill or other environment. These restrictions apply to all sales in or into the State of California, including such sales over the Internet.