

Natur-Bag® | Natur-Ware®

Compostable Products for a Sustainable World



Natur-Tec® Product Brochure

www.naturbag.com

Natur-Bag® at Work: Food Waste Diversion in Restaurants

THE CHALLENGE

Since opening in 2009, Lake Chalet has focused on reducing the amount of waste sent to landfills by implementing a recycling and organic waste diversion program. A challenge Lake Chalet faced during this initiative was determining how to set up an effective and sanitary system for collecting and sending food scraps to a compost facility. They needed a strong and robust compostable bag that contained odors and maintained a clean kitchen environment.

Lake Chalet evaluated various compostable bag options to find a bag that met these requirements. The bags were tested through an unconventional method they call "The Fish Test." This unique test was performed by filling a bag with fish scraps and swinging the bag around in order to measure the bag's strength. If there was not a mess, the bag passed. Natur-Bag compostable bags passed "The Fish Test" with flying colors and—perhaps more importantly—without flying fish. As a result of Natur-Bag's proven durability, Lake Chalet chose Natur-Bag to handle food scraps.

THE RESULTS

By using Natur-Bag products to collect organic waste, Lake Chalet saved time and money. They have been able to keep collection bins clean and odor-free. Now more than half of Lake Chalet's waste is sent to a compost facility instead of a landfill.



Food scraps, trimmings, and paper napkins collected in bins lined with Natur-Bag products.



"Natur-Bag products make collecting food scraps easy and sanitary in our busy kitchen. It is important that the bags can handle our heavy food waste without breaking. As a result of our successful organics collection program, we are able to send our food scraps to become useful compost and reduce our solid waste tipping fees."

—Kristian Cosentino,
Food & Beverage Manager
Lake Chalet Seafood Bar & Grill

Natur-Ware® at Work: Reducing Waste and Carbon Usage in Offices

Natur-Ware Biocutlery Stands Up to Competition

A large insurance company in Michigan implemented environmentally sustainable practices throughout its corporate offices. This initiative included replacing the plastic cutlery in dining facilities with a biobased cutlery product. Initially the company tried a starch-based cutlery made from plant-starch material (PSM) technology. It resulted in a poor user experience and added waste.

THE PROBLEM

Employees complained that the PSM cutlery was flimsy and softened in hot foods and liquids. At times they would require up to three utensils per meal! This resulted in added waste and increased replacement costs. The company was also disappointed to learn the PSM cutlery contained 65% polypropylene, a traditional plastic that does not biodegrade.

THE SOLUTION

Office management searched for a better sustainable cutlery option and chose Natur-Ware biobased and compostable cutlery. Natur-Ware's strength and high-heat resistance allowed for a 67% reduction in waste in comparison to PSM cutlery, as well as enhanced user experience and reduced costs for the office. Everyone is also pleased that Natur-Ware is a truly sustainable option made from annually renewable resources that are compostable.



Natur-Bag®

100% Compostable Plastic Bag Products

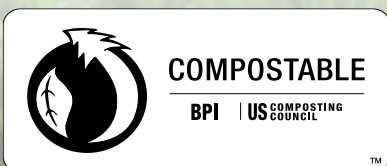
Engineered Strong | Leak-Proof | Compostable

Natur-Bag® Stock Product Industrial Offerings				
Item Description	Item Number	Dimensions	Bags Per Case	Case Pack
3 Gallon Natur-Bag	NT1025-X-00009	17" x 17" 0.8mil	500	25/roll x 20 rolls
13 Gallon Natur-Bag	NT1025-X-00010	23.5" x 29" 0.9mil	250	25/roll x 10 rolls
30 Gallon Natur-Bag	NT1025-X-00018	30" x 39" 0.8mil	200	25/roll x 8 rolls
33 Gallon Natur-Bag Slim Liner	NT1025-X-00014	33" x 40" 0.8mil	200	25/roll x 8 rolls
33 Gallon Natur-Bag	NT1025-X-00012	33" x 40" 1.0mil	200	25/roll x 8 rolls
39 Gallon Natur-Bag	NT1025-X-00013	35" x 44" 1.0mil	100	20/roll x 5 rolls
45 Gallon Natur-Bag	NT1025-X-00011	38" x 48" 1.0mil	100	20/roll x 5 rolls
55 Gallon Natur-Bag Slim Liner	NT1025-X-00015	42" x 48" 1.0 mil	100	20/roll x 5 rolls
55 Gallon Natur-Bag	NT1025-X-00003	42" x 48" 1.25mil	100	20/roll x 5 rolls
69 Gallon Natur-Bag Slim Liner	NT1025-X-00016	48" x 60" 1.0mil	50	10/roll x 5 rolls
Natur-Bag T-Shirt/Carry-Out Bag	NT1075-X-00001	12" x 6" x 19.5" 1.0mil	500	N/A

Natur-Bag Stock Product Retail Offerings				
Item Description	Item Number	Dimensions	Bags Per Pack	Packs Per Case
3 Gallon Natur-Bag Retail Pack	NT1075-RTL-00004	17" x 17" 0.8mil	25	24
13 Gallon Natur-Bag Retail Pack	NT1075-RTL-00007	23.5" x 29" 1.0mil	12	12
33 Gallon Natur-Bag Retail Pack	NT1075-RTL-00001	33" x 40" 1.0mil	10	12
33 Gallon Natur-Bag Retail Sleeve	NT1075-RTL-00009	33" x 39" 1.0mil	5	24
39 Gallon Natur-Bag Retail Sleeve	NT1075-RTL-00010	35" x 44" 1.0mil	10	10
Pet Waste Natur-Bag Retail Pack	NT1075-RTL-00003	10" x 14"	50	12

Features:

- Certified Compostable by the BPI (Biodegradable Products Institute)
- Certified Compostable by AIB-Vinçotte
- Meets ASTM D6400 and EN 13432 Standard Specifications for Compostable Plastics
- Does NOT Contain Any Polyethylene or Other Conventional Plastics
- Meets Requirements of California AB1972
- Meets Requirements of Minnesota HF403/SF383
- Green Cart Compatible
- Pre-Approved for Use by Recology™ Waste Systems, Cedar Grove Composting, American Organics Recycling, Eureka, and More



NaturWare®

Biobased Compostable Cutlery

Biobased | GMO-Free | Compostable

Natur-Ware® Cutlery Stock Product Industrial Offerings		
Item Description	Item Number	Units Per Case
Natur-Ware Fork	NT1890-BULK-00004	1000
Natur-Ware Knife	NT1890-BULK-00005	1000
Natur-Ware Spoon	NT1890-BULK-00006	1000

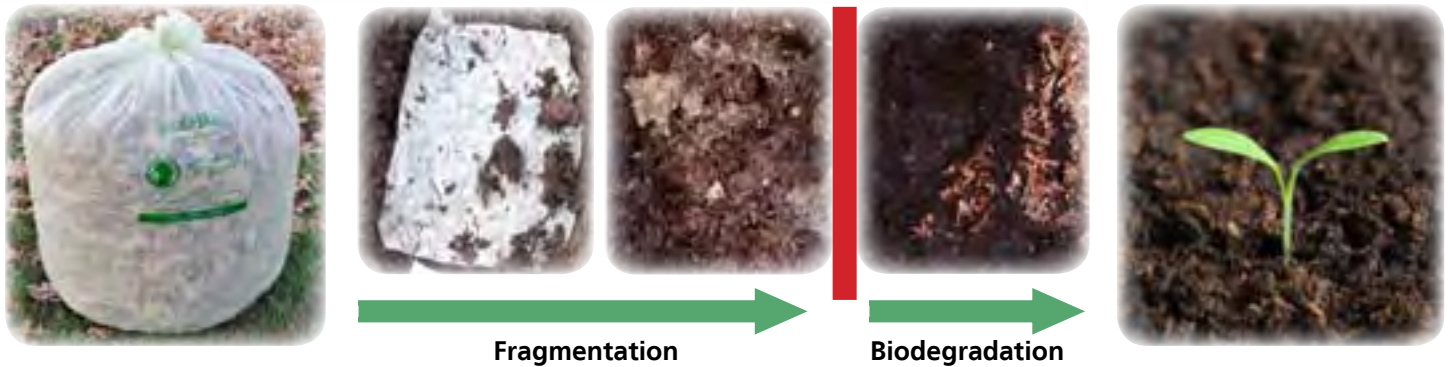
Natur-Ware Cutlery Stock Product Retail Offerings			
Item Description	Item Number	Units Per Pack	Packs Per Case
Natur-Ware 24-piece Combo Party Pack	NT1890-RTL-00008	24	24

Features:

- Made from GMO-Free, Annually Renewable Resources
- Meets ASTM D6866 Standard Specification for Biobased Plastics
- Meets ASTM D6400 Standard Specification for Compostable Plastics
- Reduces Carbon Usage by 80% in Comparison to Traditional Plastic Cutlery
- Do Not Contain Polypropylene or Polystyrene
- Sturdy and High-Heat Resistant



Natur-Bag® Compostable Film in a Composting Environment

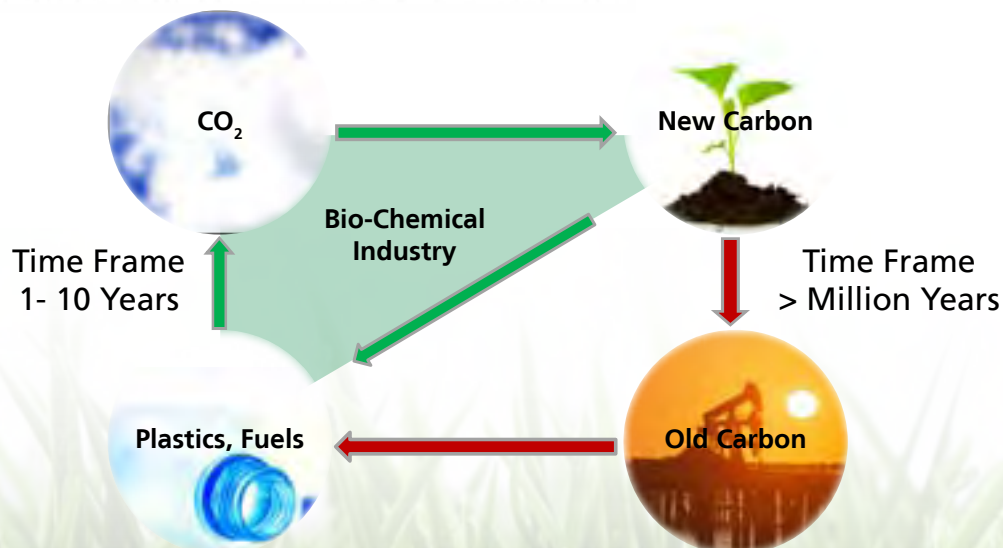


Composting is a two-step biological process that converts organic matter such as food, manure, leaves, grass trimmings, paper, etc., into valuable humus (nutrient rich soil amendment). The first step in this biological process is fragmentation, in which organic matter is broken down into microscopic fragments. The second step in the process is the actual biodegradation, in which aerobic (oxygen breathing) micro-organisms consume the microscopic organic fragments as food, and in turn generate humus, water and CO₂. Compostable plastics that meet ASTM D6400 are engineered to break down in a composting environment, and be used as a food source by the micro-organisms in the composting environment.

Biodegradability – Complete utilization of the fragmented product as a food source within a specified timeframe, by micro-organisms in the end-of-life disposal environment. The disposal environment could be soil, composting, marine, etc., and the timeframe specified will vary depending upon the level of microbial population in that disposal environment.

Compostability – Complete breakdown and assimilation by the micro-organisms within 180 days, in an industrial compost environment. Composting is the most aggressive disposal environment due to the presence of high levels of microbial population, humidity and oxygen.

Natur-Tec® Products Enable Carbon Footprint Reduction



Converting atmospheric carbon into petroleum through biomass takes millions of years, whereas releasing the carbon from the petroleum back into the environment takes only 1-10 years. This huge imbalance between the rates of carbon fixation and release makes the use of petroleum completely unsustainable from an environmental perspective.

Unlike petroleum based plastics, bioplastics are inherently sustainable, because they seamlessly integrate into nature's carbon cycle by balancing the rate of carbon release with the rate of carbon fixation.

Natur-Tec® Products Offer an Integrated Zero-Waste Solution

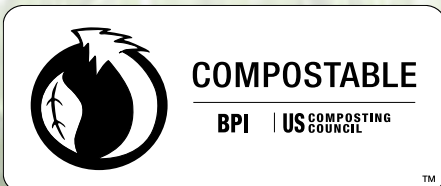


Zero-Waste and Organics Diversion programs are growing trends in various segments across the United States and Canada. From public schools to private business, these initiatives are playing vital roles in sustainability efforts. Natur-Bag® and Natur-Ware® are useful tools in these programs.

Natur-Bag® | Natur-Ware®

www.naturbag.com

Made from Natur-Tec® Biopolymers



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