Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

LifeMade Products

LifeMade
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Manufacturer
Member since October 2022

Management and Leadership

☑ **Environmentally Preferable Products and Services**

By taking renewable bio-based materials, LifeMade Products has created a foam material which is not only sustainable but does so without compromising performance. The patented and patent-pending process for producing Bioffex™ uses significantly less water and energy than any other shape-molded foam molding process, while utilizing air as a blowing agent. With its superior structural integrity, thermal insulation characteristics and super low density, businesses can switch to Bioffex™ with no equipment change.

Foam coolers produced with Bioffex™ outperform mechanical and thermal protection requirements for maintaining the quality of food, wine, and vital medical products, allowing businesses to be sustainable without sacrificing performance. Bioffex™ is already being used to ship flu vaccines and ensure they arrive safely to hospitals and pharmacies ready to use. Sustainability has been addressed in the sourcing, manufacture, and use with our patented features unique to Bioffex™. When Bioffex™ foam coolers are shipped from business to business or to consumers, greenhouse gas emissions and energy use are reduced compared to EPS and other EPS replacement products.

After the end-user receives their product, Bioffex™ shipper can be industrially composted, turning into fertilizer in just fourteen to twenty-one days, or it can be reused multiple times with proven consistent performance. If sent to a bioactive landfill, Bioffex™ will break down within a couple of years. Bioffex™

exceeds performance requirements while being sustainable throughout its entire lifecycle. Bioffex™ passes ASTM D6400 for industrial compostability within 21 days and outperforms or performs equal to EPS shippers in both ISTA performance tests and ISTA-6-FEDEX-A mechanical drop studies.

Waste

☑ **Recycling**

We have four major waste streams at our facility that we are currently recycling: LDPE, old-corrugated cardboard, polypropylene, and paper. In an effort to increase the amount of material sent to recycling facilities and reduce waste sent to landfills, our facility began a large-scale effort in February 2021 to reduce waste sent to landfills by 95% through sorting and recycling. Not only would this reduce our costs, but working with Georgetown Paper Stock of Rockville, we would be compensated for sending them materials. In 2021, we added a cardboard baler to increase efficiency and reduce the carbon footprint of sending old-corrugated cardboard to recycle facilities.

We also added bins across the facility for collection of paper. In 2021, we earned $91k in sales of recyclable materials. Not only does this help our company payback for the initial purchase of the cardboard baler, but this amount has encouraged us to add to our recycling efforts. In 2022, we added four large supersacks to further improve efficiency of sorting materials for pick-up, specifically plastic bottles, stretch film, and polypropylene. In 2022 so far, we have earned $130k in sale of recyclable materials.

☑ **Hazardous Waste/Toxic Use Reduction**

Producing Bioffex™ shippers requires no VOCs which must be captured and destroyed to prevent release in the atmosphere. Additionally, since water is not used to process the shippers, no water is contaminated which must be cleaned and treated. Every pound of Bioffex™ produced requires 90% less water and 95% less greenhouse gases than if we had used traditional polystyrene to produce foam coolers. In 2022, we produced 140,000 lbs. of material this way. Our facility will continue to add equipment to produce more Bioffex™ shippers and reduce how many traditional polystyrene shippers we produce. As we replace polystyrene foam cooler production, we will reduce our hazardous wastes by 95% and reduce water in our operations by 90%.

Energy

☑ **Energy Efficiency**

The patented process which produces Bioffex™ shippers reduces energy usage to create the foam shippers up to 40%. In 2022, we cycled 48,000 cycles of our machine with 40% less energy being required to produce those parts. The energy savings is from reduced steam usage from our boiler and a better utilization of cycle-time through proprietary software. Our facility will continue to add equipment to produce more Bioffex™ shippers and reduce how many polystyrene shippers we produce. As we replace polystyrene foam shipper production, we will reduce our energy usage by 40%.

Water

☑ **Water Conservation**

As mentioned above, our process requires no water to process foam coolers as traditional polystyrene and other foam manufacture requires. By switching from production of polystyrene foam shippers to Bioffex™ shippers, we will reduce the water usage at our facility by 90%. We estimate that in 2022, we avoided using 400,000 gallons of water by switching to Bioffex™ production.

☑ **Stormwater Management**

Our stormwater pollution prevention plans are reviewed on an annual basis with our staff to ensure that all employees are trained on requirements and how to respond in case of spills. Additionally, drain inlet protectors have been installed over all stormwater drains to prevent debris from entering.

Environmental Certification Programs, Awards, and Other Activities

☑ *Our Envirocooler® Bioffex™ has been award USDA Biopreffered status with a 100% renewable content designation. Envirocooler® Bioffex™ passed ASTM D6400 for industrial compostability within twenty-one days and was awarded with BPI certification.*