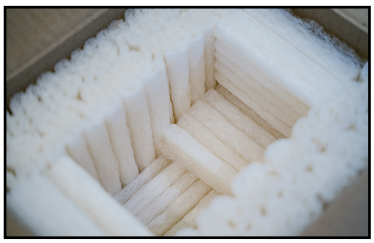
A range of 100% plant based materials offer a perfect replacement to single use plastics and plastic packaging, helping businesses be better for the environment, reduce carbon emissions and waste while offering clients a quality point of difference. Be better at business with EcoFoam.

EcoFoam Materials

- 100% compostable
- 100% biodegradable
- 100% made of plants
- Average of 60% reduction in carbon emissions during manufacturing
- All resins within the Composta© are completely biodegradable according to international standards and are either entirely or mostly based on renewable raw materials.
- EcoFoam materials biodegrade so It is essential to store materials inside, in a dry and cool place. Suitable for storage for 24 months but should be used immediately for best results.
- All EcoFoam materials are made with natural plant based ingredients like cornstarch and soy oil.
- EcoFoam = 68% less energy requirements and 76% less greenhouse gas emissions than comparable amounts of polyethylene foam.

EcoFoam

100% Environmentally friendly. water soluble, compostable solution to traditional packaging foam. Used in shipping, packing and crates to protect products and items in transit and storage. The EcoFoam line of naturally biodegradable foam is produced from a premium-grade proprietary starch. EcoFoam foams provide effective product protection and offer an environmentally safe alternative to current synthetic foam products.



Technical Data | Testing of the Materials

EcoFoam materials offer the following benefits:

• Strength and Resilience
• Good First and Multiple Impact Protection
• Naturally Anti-Static Behavior - perfect for electrostatic discharge-sensitive products
• High Resistance to Thermal Fluctuation
• Lightweight, Closed-Cell, Medium Density (2.6-5.2 pcf)
• 100% Environmentally Safe
• Meets Standards for Biodegradability in Ground and Water-based Environments set by the American Society for Testing and Materials (ASTM) and the International Organization for Standardization (ISO)
• Facilitates ISO 14000 Certification by demonstrating a commitment to continual environmental improvement.

TECHNICAL DATA

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EcoFoam Cornstarch Foam Original Formula (GCA)

- Closed-cell foam, available in 1.18-2.36. Kilos. densities
- Corrugated design optimizes cushioning and stabilizes cargo
- Width of 610mm and lengths of 1372mm, 1524mm or 1829mm

Electrical Characteristics

Naturally Anti-Static Humidity Independent
Surface Resistance: 10^9 – 10^{10} Ohms per EOS/ESD-S11.11-1993
Charge Decay Rate: Less than 0.1 seconds

Mechanical Characteristics

Biodegradable Foam
Multiple – Impact Protection
Acts as a Desiccant

Chemical Characteristics

Non – GMO Cornstarch
Non – Corrosive
Non – Toxic, No Irritation
No VOC's, Lead, Cadmium, Mercury, Hexavalent, Chromium, PBB or PBDE flame retardants

Environmentally Friendly

Reusable
Recyclable, Compostable, Clean Burning

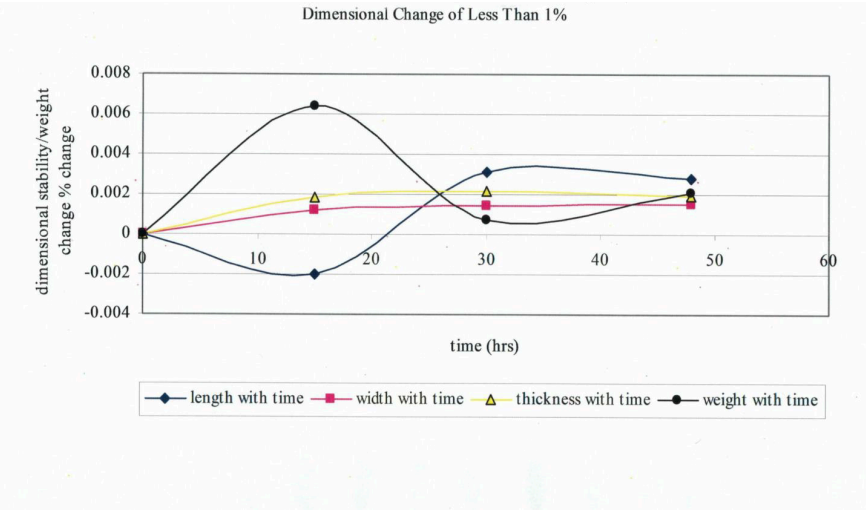
Performance Requirements

ESD Industry Standards
EIA-541 and 625 Guidelines
S20.20
RoHS

EcoFoam is biodegradable (ASTM D6400) compostable and water-soluble. These attributes make it the most environmentally friendly fabricated packaging material available. These same attributed bring rise to the questions of dimensional stability in extreme environments, high humidity and temperature as well as low temperatures.

There are currently no ASTM standards testing requirements for these physical properties, although they are currently being written because of EcoFoam. These standards will include the testing protocol that was used to produce the Humidity Test results for BioViron Composta-foam

Testing was conducted on an industry standard packaging system, RSC 200# 'C' flute, kraft corrugated box sealed with EcoFoam the inside. Tests were conducted at 95% RH +/-5% at 98.6 F for a period of 48 hours. The results recorded showed that the material weight and dimensional change was less than the margin of error expected during such procedures.



END OF LIFE | DISPOSABLE SUGGESTIONS

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EcoFoam material is safe, non-toxic, water-soluble, fully biodegradable polymer material and meets all US and international standards of biodegradability including specifications for compostable plastics as per ASTM D6400 (USA), DIN54900 (Germany) and EN13432 (Europe).

EcoFoam has shown to be biodegradable in various environments as per ASTM D5988 (soil), ASTM D5338/ ISO14855 (composting) and ASTM D6691 (aqueous and marine). If discarded in any of these environments, the foam would become readily available as a nutrient/food source for the micro-organisms and enter the microbial food chain.

These unique properties provide unique opportunities in discarding EcoFoam in an ecologically responsible and environmentally acceptable manner.

If laminated to corrugated material…
If the foam is laminated to corrugated boxes or sheets, simply place the entire package in the recycling bin. Recyclers welcome the starch foam material as cornstarch is routinely added in the recycling process.

If the local community has a composting facility…
Composting facilities are becoming more prevalent in communities throughout North America, Europe and Asia. EcoFoam breaks down in less than one week during composting. Starch breaks down into simple sugars – excellent nutrients for microorganisms.

If a large amount is received by an end user…
EcoFoam recommends that to properly dispose of a large amount of the foam, an entity should understand the options available in the community: recycling companies, composting facilities, wastewater treatment plants, and even area farmers should accept the foam for safe and effective disposal and may even be useful in the operation.

There are numerous ways to dispose of EcoFoam:

- Bury it in a garden or yard
- Break into small pieces, place them in a sink or on the ground and run water over it
- Dissolve in water without harm to pipes or the environment
- Burn It, 100% Non-toxic
- Throw it away with other refuse (always safe, but not the best option)

PERFORMANCE CHARACTERISTICS

PROPERTY	UNITS	TEST METHOD	RESULT
DENSITY	lb/ft^3	ASTM D-3575 (sec 43)	2.3-5.3
COMPRESSIVE CREEP	%	ASTM D-3575 (24 hr test)	7% at 1 psi
COMPRESSIVE SET	%	ASTM D-3575	4.1% at 0.5 psi 7% at 1 psi
CELL STRUCTURE	-	ESEM	closed
CELL SIZE	µm	ESEM	200-500
ELECTROSTATIC TESTING	ohms	EOS/ESD-S11.11-1993 Charge decay rate <0.1 sec	10^9-10^{10}
FLAMMABILITY	% mass remaining	-	99.5%
BUOYANCY	lb/ft^3	ASTM D-3575	dissolves

USES FOR A WIDE RANGE OF INDUSTRIES