

A-OR Algae EVA

Applications

- Apparel
- Sporting goods
- Luggage
- Construction materials
- Consumer goods
- Packaging
- Furniture
- Automotive, etc.

Form

- Masterbatch resin for foam injection molding

Stock Colors



Algae Green



Argon Purple



Rhodo Red



Canopy Green



Seaweed Green



Lapis Blue



Transitional Grey



Obsidian Black

Note: The colors you see on your screen may not be an accurate reproduction of the actual product. We strive to make our colors as accurate as possible, but screen images are intended as a guide only and should not be regarded as absolutely correct.

BLOOM foam is an EVA composite material made with algae and recycled EVA. Renewably sourced from waterways where algae has become an environmental problem, BLOOM's harvesting process helps mitigate devastating effects on freshwater ecosystems, and recirculates fresh water back into the habitat. BLOOM foams can be used as direct replacements for conventional closed-cell EVA foams.

Key features include great shock absorption, durability, flexibility, weight reduction, and thermal insulation. BLOOM foam is the environmentally-aware alternative to synthetic and petroleum-based foams, without compromising quality and performance.

Property and Test Standard	Units	A-OR Algae EVA
Melt Flow Rate (ASTM D1238 @ 190° C/2.16 kg)	(g/10 minutes)	1.96
Tensile Properties (ASTM D638, crosshead speed 2.0 in/minute)		
Tensile Strength at Yield	PSI (MPa)	1,032 (7.11)
Tensile Modulus	PSI	18,263 (125.8)
Elongation at Break	%	90
Flexural Property (ASTM D790)	(PSI/MPa)	31,722 (218.5)
Notched Izod Impact (ASTM D256 @ 23° C)*	(ft-lb/in)	6.115 (NB)
Unnotched Izod Impact (ASTM D4812 @ 23° C)**	(ft-lb/in)	6.95 (NB)

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Note: The data shown above should be used as a guideline for product selection. It is not intended to represent, replace, or be used as a proxy for a specific product sales specification. The physical properties are averages based on limited production runs, and are subject to change as additional data becomes available.

Preparation: Materials were dried in a circulating air desiccant dryer at 180° F for a minimum of 4 hours. Dried materials were injection molded under identical conditions to create the necessary test specimens. Prepared specimens were allowed to condition a minimum of 40 hours to 23° C prior to testing.

NB=non-break

* ASTM D256 defines a non-break as "An incomplete break where the fracture extends less than 90% of the distance between the vertex of the notch and the opposite side."

** ASTM D4812 defines a non-break as "An incomplete break where the fracture extends less than 90% of the depth of the the specimen."

TECHNICAL DATA

The BLOOM Advantage

Shown here are some key results of a lifecycle assessment performed on BLOOM’s algae-EVA resin formulation. When compared to conventional EVA, BLOOM foams provide larger benefits in the following categories:

- Human health
- Climate change
- Resource consumption
- Water consumption, and
- Ecosystem impact

Due to limited data on conventional EVA in the marketplace, only Resource Consumption and Climate Change showed a greater than 90% certainty of impact.

Impact Category	Units	Algae-EVA	EVA
Resources	Econ Units	9.61E-02	1.28E-01
Climate Change	kg CO ₂ eq.	1.17E+00	1.48E+00

The same data is graphed below, as percentages of environmental impact, comparing BLOOM and conventional EVA.

