



BioHaven® Floating Treatment Wetland

Product Data Sheet

1.0 Description

The **BioHaven® Floating Treatment Wetland** is a floating structure manufactured with using layers of recycled Polyethylene terephthalate (PET) matrix sheets that are adhered together with Coast Guard approved marine foam for buoyancy. The **BioHaven® Floating Treatment Wetland** is coated with spray polyurea armoring. Plant holes are also pre-cut in order to grow vegetation hydroponically. A walkway or high floatation maintenance zone is also present for ease of maintaining the vegetation.

2.0 Use

The **BioHaven® Floating Treatment Wetland** is a proprietary product developed for the both municipal and industrial wastewater systems as well as stormwater treatment ponds. It is effective at reducing Total Suspended Solids (TSS), Biological Oxygen Demand (BOD), Phosphorus, Nitrogen and Fecal Coliform.

3.0 Ideal Applications

- Municipal Wastewater Lagoons
- Stormwater Retention Ponds
- Industrial Wastewater Systems
- MS-4 Stormwater Ponds

4.0 Advantages

- Retrofits into Existing Assets
- Cost-effective
- Easy to Install and Maintain
- Modular System

5.0 Physical Properties

FTW Properties	Value
Thickness*	8 inches
Weight (8" thick/15lb. buoyancy)	2 lb./ft ²
Color	Brown
Plant Holes Size	4" diameter
Surface Area	124 ft ² /ft ³
Matrix Properties	Value
Matrix Tensile	20 lb./ in. (1 layer)
Matrix Tear	20 lb./ in. (1 layer)
Matrix Fiber Type	100% Recycled Polyethylene terephthalate (PET)
Matrix Binder System	Cross Linkable Water Based Latex
Binder Application	Spray/Thermal Bond

*Thickness is approximate. Each layer of matrix is approximately 2" thick. Compression during manufacture may decrease thickness slightly.

Foam Properties	Value
Foam Type	Two Part Polyurethane Marine Foam
Eco-toxicity	Not known to be toxic to aquatic organisms
Polyurea Properties	Value
VOC	0%
Tensile Strength (ASTM D638)	2000-2800 (lb/in)
Tear Strength (ASTM D624)	300-450 (lb/in)
Environmental	Food Contact Certified; will not leach
Ecotoxicity	Not known to be toxic to aquatic organisms;

6.0 Sizes

BioHaven® Floating Treatment Wetlands:

13.5'L x 7.5'W x 8"D; with 65 plant holes

7.0 Buoyancy

BioHaven® Floating Treatment Wetlands are manufactured with a standardized 15 pounds per square foot of buoyancy in the planted area of the Wetland. The high floatation maintenance zone is manufactured with 30 pounds per square feet of buoyancy.

8.0 Vegetation

Terrestrial vegetation, such as wetland sedges, rushes, and grasses are recommended and are planted and grown hydroponically in **BioHaven® Floating Treatment Wetlands**.

9.0 Limitations

BioHaven® Floating Treatment Wetlands should not be anchored into ponds with liners, but rather on the bank. Consult **Martin Ecosystems** with specific questions or concerns.

10.0 Environmental Safety

- The matrix is manufactured with 100% recycled Polyethylene terephthalate (PET) plastic drinking bottles. Water Based Latex Resins are used in the matrix manufacturing process. No phenol-formaldehyde resins are used in the binding process. The matrix has been tested and was found to be non-toxic to aquatic life.
- The polyester matrix fibers (PET) are non-reactive and resistant to attack by micro-organisms. PET is inert, won't biologically degrade and will not leach. PET is also inherently more UV resistant than other plastics, like polypropylene, because of its molecular structure.
- The polyurea coating is perfect for marine environments because it is inert, it will not hydrolyze, leach or contaminate. It provides UV protection, contains no VOCs and is direct food contact approved.

11.0 Green Initiative

- Polyester fiber used in our matrix material comes from 100% recycled PET plastic drinking bottles.
- Every 1 square foot of 2" thick matrix is manufactured using 3 (16.9 oz) plastic bottles.

12.0 Safety

Basic safety for personal protection is:

- Wear long sleeves and/or gloves when handling to avoid skin scratching and abrasions.
- Do not put or use near high heat or open flames.

13.0 Technical Services

Contact **Martin Ecosystems** for Sales and Customer Support 225-292-6750.

14.0 Warranty

Martin Ecosystems will refund the price of or replace, at its election, this product to the original purchaser, if it finds to be defective of materials and or workmanship, provided the product has been used properly. Except as stated above, the company makes no warranty of damage caused by the owner modifying, attempting to fix or otherwise altering the product from its original embodiment and no warranty of installation of product. This warranty lasts for one (1) year from the date of original purchase. This warranty covers the original purchaser and is not transferrable. In no event shall the company be responsible for damage to or loss in shipment. This limited warranty does not insure the product during shipment. This warranty is the sole and exclusive warranty. No employee, agent, dealer, or other person is authorized to alter this warranty or make any other warranty on behalf of Martin Ecosystems. No Other Express Warranty Applies. Martin Ecosystems shall not be responsible for any incidental or consequential damages. Some states do not allow the limitation or exclusion of relief, incidental, consequential, special or indirect damages, or the limitation of liability to special amounts, so the above limitations or exclusions may not apply to you.