

# AQUACELL™ 500

## BIOFILM CARRIER

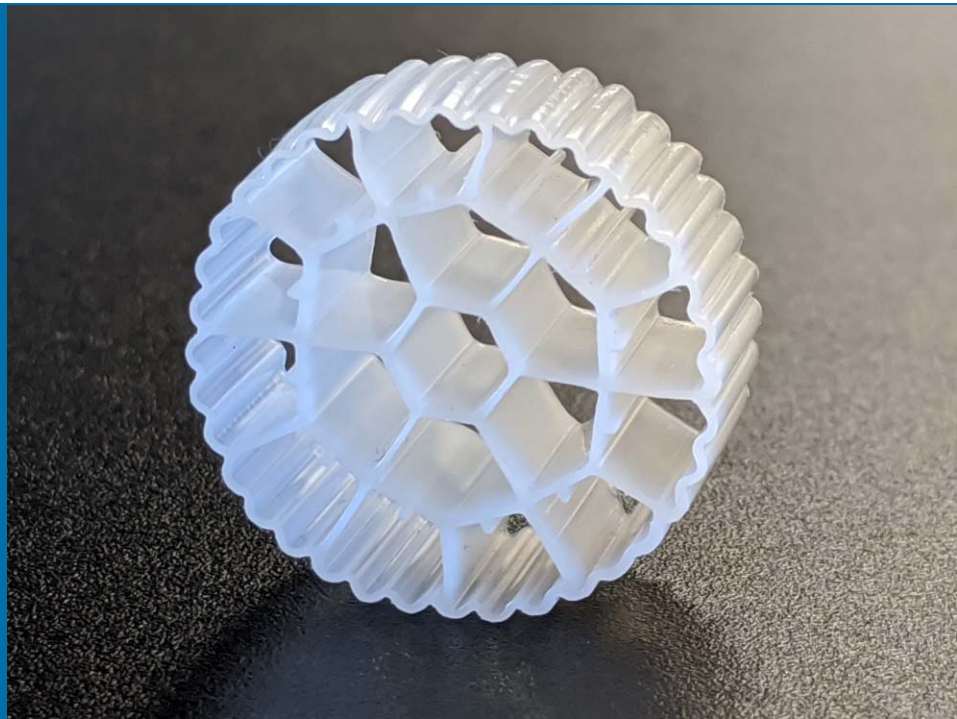
AquaCELL™ 500 biofilm carriers move freely within an aerated or mechanically mixed wastewater treatment process and provide a high specific surface area for biofilm growth. As the carrier elements migrate throughout the water column, wastewater passes through the protected internal cells allowing contact between organic/inorganic waste and the fixed biofilm thus providing treatment.

### FEATURES

- High-Density Biofilm Growth
- Large Surface Area to Volume Ratio
- Robust Structural Integrity
- Optimal Specific Gravity
- UV Inhibitor Capability

### BENEFITS

- Excellent Hydrodynamics and Mass Transfer Efficiency
- Dense Fixed-Film Population of Resilient and Adaptive Microorganisms
- Long Life Cycle with Resistance to Corrosion
- Low Mixing Energy Requirements
- Easy to Install
- Cost Effective Treatment Option for New Build and Retrofit Applications



### SPECIFICATIONS

<b>Diameter</b>	<b>25 mm</b>	<b>1 inch</b>
<b>Length</b>	<b>12 mm</b>	<b>1/2 inch</b>
<b>Weight</b>	<b>95 kg/m<sup>3</sup></b>	<b>5.9 lbs/ft<sup>3</sup></b>
<b>Protected Surface Area</b>	<b>500 m<sup>2</sup>/m<sup>3</sup></b>	<b>151 ft<sup>2</sup>/ft<sup>3</sup></b>
<b>Specific Gravity</b>	<b>0.94 to 0.96</b>	
<b>Void Space</b>	<b>&gt; 80%</b>	
<b>Material</b>	<b>High-Density Polyethylene (HDPE)</b>	

### PACKAGING

<b>Packaging</b>	Polypropylene fabric bags with top opening, four top mounted lifting straps (located on corners) and bottom draw string chute with fasteners
<b>Package Size &amp; Weight</b>	Each AquaCELL™ 500 media bag contains 1 m <sup>3</sup> (35.3 ft <sup>3</sup> ) and weighs approximately 209 lbs (95 kg)
<b>Shipping &amp; Offloading</b>	Bags are stacked two high on standard 4x4 ft pallets. Media is shipped on enclosed or flat bed trailers. Forklift or large lifting machine required for offloading.

## MATERIALS OF CONSTRUCTION

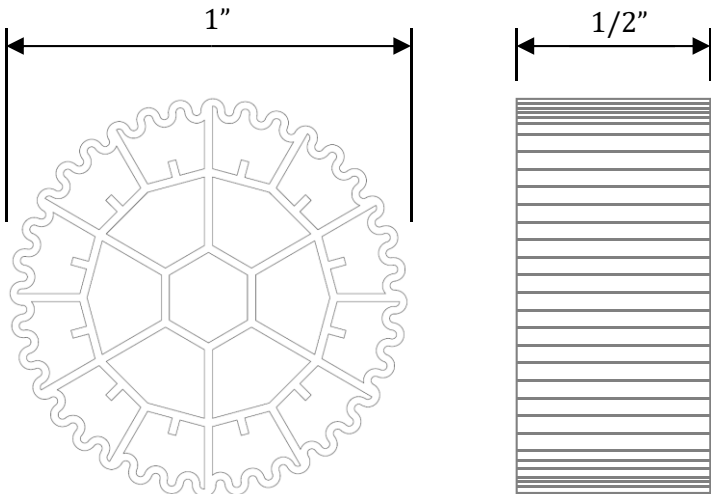
AquaPoint's AquaCELL™ 500 Biofilm Carriers are manufactured from virgin high-density polyethylene (HDPE) and are designed for long life operation with resistance to damage from handling, pH fluctuation, corrosion and a wide temperature range. HDPE is a cost effective, durable non-toxic material which makes it ideal for wastewater treatment applications. UV inhibitors may be compounded with the material during production to provide protection from UV degradation.

## CHARACTERISTICS

AquaPoint Biofilm Carriers are designed for the most productive surface area per unit volume by maintaining large internal cells for efficient mass transfer of substrate, oxygen and nutrients. The cell size is designed to allow for adequate scouring and to limit potential for plugging.

Each carrier has a geometric configuration as depicted. The middle and outer cylinders are connected by twelve radial vanes, half of which protrude in towards the central hexagon.

Guidelines for handling and installing AquaPoint Biofilm Carriers are available from AquaPoint and must be followed by the contractor and operator to prevent damage during installation and maintenance.



## APPLICATIONS

- Single Pass Moving Bed Biofilm Reactors (MBBRs)
- Integrated Fixed-Film Activated Sludge (IFAS)
- Roughing Reactors
- Multi-Staged Treatment for Enhanced Bio-Kinetics
- BOD / COD / TOC Reduction
- Ammonia Removal / Nitrification
- Denitrification
- Modified Ludzack Ettinger (MLE) Arrangements
- Enhanced Nutrient Removal (ENR) Arrangements

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