



BETWEEN THE WORLD AND THE WEATHER SINCE 1928

# BLACK PEARL<sup>®</sup>

## WATERPROOFING SYSTEMS



COLD APPLIED  
RUBBERIZED ASPHALT  
WATERPROOFING



Mudslab and Foundation Walls



Complexity is Not an Issue

# Barrett Black Pearl® Waterproofing System More than Weatherproofing

Unlike “weatherproofing”, a true waterproofing membrane will maintain its watertight integrity and prevent the passage of liquid under dynamic, static, continuous, or intermittent hydrostatic pressure.

***Black Pearl, is a true waterproofing membrane.***

Tenaciously adhered Black Pearl waterproofing also prevents the passage of liquid water between the membrane and concrete substrates, even under 250 pounds per square inch of hydrostatic pressure. Black Pearl also resists deterioration from common identified chemical exposure and resists root penetration.

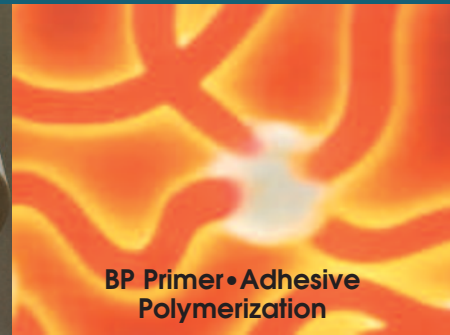
Offered with long term warranties assuring it will perform its waterproofing function, Black Pearl is backed by the first name in American commercial moisture protection, The Barrett Company.

*“You can’t specify and reasonably expect ‘Exceptional Workmanship’ but you can specify Black Pearl which is redundant, worker-friendly and doesn’t require contractor ‘exceptionalism’.*”

*Our mission has always been simple; to provide the best quality materials, to monitor installation details and to inspect workmanship better than anyone else.”*



Polyester/Fiberglass  
Membrane  
Reinforcement



BP Primer • Adhesive  
Polymerization

What are the Key Benefits of the Barrett Black Pearl System?

## Superior Strength and Flexibility

Unlike similar waterproofing membranes reinforced with glass fabric, Black Pearl Membranes are made with FSC Textbond® spunbond polyester that is reinforced with integral longitudinal fiberglass strands set 3/8” apart in the machine direction. This synergistic combination provides polyester’s well known elastic elongation, puncture and tear resistance with the tensile strength and stability of fiberglass. The rubberized asphaltic matrix is the same unique waterproofing material as Black Pearl Primer•Adhesive for 100% compatibility and high performance.

## Superior Performance, Longevity and Durability

Unlike similar waterproofing adhesives that only use one or two rubber polymer modifiers with oxidized asphalt, Black Pearl Primer•Adhesive uses three rubber modifiers, butyl, neoprene, and SBS with unoxidized asphalt. Each component imparts a desirable property. This unique and superior combination provides aggressive full adhesion to the substrate and chemically fuses with Black Pearl Membranes to form a thick, semi-monolithic waterproof membrane delivering superior performance and durability. The extra mass also provides improved damage resistance during construction, an environment well known for abusive exposure.

**Trust.** Barrett has over 40 years of rubberized asphalt waterproofing experience on many of our nation's monumental structures, computer data centers, museums and mission-critical structures, proving on-going performance with zero failures. Experienced in system development, manufacture, and application, our expertise is borne from 5 generations and over 80 years of roofing and waterproofing success.

**Our Promise to You.** With a national network of trained Approved Contractors, over a thousand distributors, and complete design and specification assistance available from our technical staff, Barrett can make your life easier, while keeping your project on schedule and watertight for decades to come.

### Challenging Applications



### Simple Detailing



### Below Grade with Drainage



## Security through Superior Engineering and Redundancy

Unlike similar water-proofing assemblies, Black Pearl was not "value-engineered" to provide the least expensive "adequate waterproofing"; it was engineered to provide a qualified substitute for hot-melt rubberized asphalt and to be the best it could be. The multiple layers of Black Pearl waterproofing provide the back-up redundancy not provided by single ply systems while retaining all of the elastomeric benefits offered by single ply systems. Extra thick detailing at all flashings provides extra mass and strength where most problems occur.

## Fast, Easy Application with Increased Productivity

The Black Pearl system has been engineered to provide bonafide elastomeric waterproofing that can be installed as low as 0°F as a cold process, unheated application. The waterproofing can be completed quickly, with high quality results, in a wider range of circumstances than other options. Black Pearl eliminates the need for propane, open flames or heating and allows a building to be closed-in quickly so interior work can proceed.

## Eliminates Concrete Curing Delays

Mindful of the inconvenience and cost of weather and curing delays, Black Pearl Systems have been engineered to be installed on fresh "green" concrete, eliminating typical 28 day curing periods and the expense of curing agents. Black Pearl Systems do not require cants, swales, or crickets further reducing costs and making application easier.

## Versatile

Most Black Pearl applications are over concrete substrates, however, exterior grade plywood, blindside lagging, sheet piling, cement board and even asphalt protection boards are also acceptable substrates with some waterproofing designs. Consultation and peer reviews are encouraged and welcomed.

Black Pearl systems are compatible with extruded and expanded foam boards, PVC, EPDM, drain mats, asphaltic materials and coal tar pitch. Unlike similar systems that require winter grade, summer grade and spring/fall grade, Black Pearl is an all-season material that can be installed anytime between 0°F and 100°F, eliminating stocking and out of date problems.

### Vegetated Plaza Deck

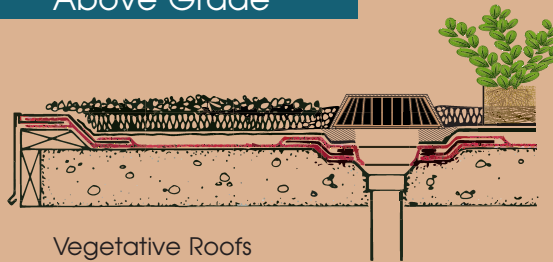




## Installing Flashing & Black Pearl Primer • Adhesive

### Typical Black Pearl Installations

#### Above Grade



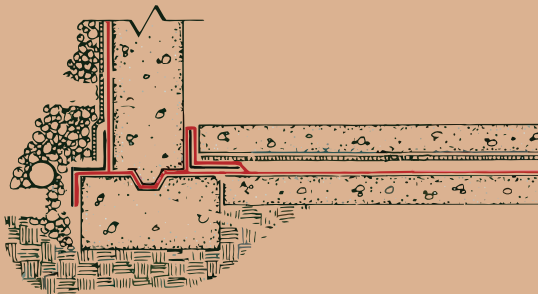
Vegetative Roofs  
Protected Membrane Roofs

#### On Grade



Plaza Decks  
Parking Decks  
Bridge Decks

#### Below Grade



Foundation Walls & Mud Slabs  
Blindside Walls  
Sheet Piling & Laggings  
Tunnels & Underground Structures

### Barrett Company's Warranties

#### Vegetative EcoCline® & Greenroof • Roofscapes® Systems

Available with complete single-source system warranties that are the most comprehensive available.

#### Protected Membrane Roofs

Available with single-source warranties including membrane, membrane flashings, expansion joints, insulation and ballast.

#### Plaza Systems

Plaza Systems are available with single-source system warranties including membrane, membrane flashings, insulation, expansion joints, concrete pavers and pedestals.

#### Waterproofing Applications

Barrett Waterproofing applications are available with similar single-source warranties including drainage, insulation, root barrier and resistance to pre-approved, identified chemicals.



Another Successful Flood Test



Layering BP Sheet into BP Primer•Adhesive



Finished Black Pearl Membrane

## Design Alerts

- Concrete substrates should comply with ASTM D5295 specifications and American Concrete Institute (ACI) 301.11.7.3 guidelines for deck preparation with a wood float finish.
- Moist water cure of concrete is all that is required. Do not use curing agents without written approval.
- Green concrete is an acceptable substrate but surfaces should be dry to start the Black Pearl application. Do not apply over visible water or when the temperature is below 0° F.
- Most detailing is accomplished with the same Black Pearl materials, with the addition of butyl tape, expansion joint components, protection course, drainage courses and select overburdens.
- Detailing and flashings are installed before the field of the waterproofing membrane is installed, facilitating ease of application resulting in improved quality of workmanship and productivity.
- PMMA is an acceptable flashing alternative for some details.

## Component/Accessory List

- Black Pearl Primer•Adhesive Waterproofing Compound (BP•PA)
- Black Pearl Waterproofing Membrane (BP•WM)
- Black Pearl Butyl Tapes
- Customized Expansion Joint Assemblies
- Black Pearl Rubberized Primer
- RAM Mastic, SBS trowel grade
- RAM Ultra Silver and Ultra White Coatings
- RAM 200 and 203 Protection Courses
- RAM 306 Granular SBS/polyester sheet
- Various drainage mediums
- Custom squeegees and brushes
- Greenroof•Roofscapes® and EcoCline® vegetative roofs are available with patent-pending, extraordinary high water retention. A unique five year vegetation stewardship maintenance program is available in select Mid-Atlantic geographic areas.

## Did You Know?

Barrett has won numerous awards, including four Barrett Greenroof•Roofscapes® projects that have won recognition with the prestigious **GRHC "Award of Excellence"** and two Barrett projects, the Lincoln Memorial and the International Monetary Fund Headquarters One and Two, that have won the **NRCA "Gold Circle Award"**.

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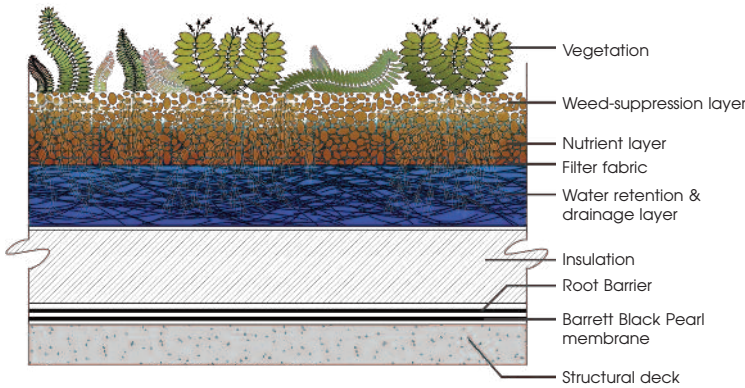
## High Performance Living Roofs

### General Description

EcoCline is a vegetative roof covering unlike any other. Developed by Furbish and marketed in conjunction with the Barrett Company waterproofing systems, the EcoCline profile options offer highly efficient stormwater management and guaranteed plant performance in lightweight configurations.

Other attributes include high-recycled content, low carbon footprint, profile flexibility to meet stormwater and other design criteria with a dependable, time proven waterproofing assembly.

The Barrett / EcoCline assemblies are offered with up to a 25 year single source labor and material warranty, covering waterproofing, thermal performance, overburden removal, a 10 year concrete paver warranty and a renewable 5 year vegetation warranty.



### EcoCline Components

EcoCline was developed to utilize high-performance components in smart combinations that utilize the least amount of embodied energy feasible.

The bottom layer of EcoCline is a water retention and drainage layer of high-density horticultural mineral wool that retains 94% of its volume in stormwater. This material is comprised of over 60% waste stream slag.

The top layer of EcoCline – the aggregate media – is commonly comprised of waste stream brick and granite quarry spoils with waste stream organic components, a composition that closely resembles the native habitat of Sedums and other green roof plants. Further, these aggregate materials are locally abundant in most places in the US, without the need for kiln-firing or long distance trucking.

### EcoCline Vegetation

EcoCline provides reliable plant performance. Plants will ideally be established via a variety of Sedum plugs, or plugs of species native to the area, and supplemented heavily with Sedum cuttings.

Initial plant establishment is included with each EcoCline system, with service provided by Furbish, who has some of the most extensive green roof establishment and maintenance experience in the US. This allows an unmatched guarantee of early, reliable and long-term vegetative success.

### Common EcoCline Profiles

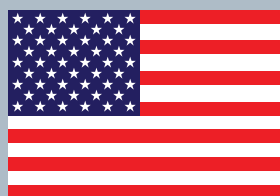
	EcoCline 2+1	EcoCline 3+1	EcoCline 2+2	EcoCline 3+2	EcoCline 3+3
System Thickness	3 inches (2" media + 1" water retention)	4 inches (3" media + 1" water retention)	4 inches (2" media + 2" water retention)	5 inches (3" media + 2" water retention)	6 inches (3" media + 3" water retention)
Dry weight	13-15 lbs/sf	19-22 lbs/sf	14-16 lbs/sf	20-23 lbs/sf	21-24 lbs/sf
Max. Fully Saturated Wt.	21-22 lbs/sf	28-30 lbs/sf	26-27 lbs/sf	34-36 lbs/sf	39-41 lbs/sf
Water Holding Capacity	0.9 gallons/sf	1.0 gallons/sf	1.5 gallons/sf	1.6 gallons/sf	2.1 gallons/sf
Max. Rain Event Capacity	1.4 inch storm	1.5 inch storm	2.2 inch storm	2.4 inch storm	3.4 inch storm
ANSI/SPRI RP-14 Class	# 2 ballast	# 2 ballast	# 2 ballast	# 2 ballast	# 2 ballast
MDE Runoff Curve Number	88	88	77	77	<77
Maximum Water retention (ASTM E-2397 & 2399)	42%	36%	55%	47%	55%

Other EcoCline profiles are available to meet the stormwater and weight requirements for your project.

# Black Pearl Typical Physical Properties

ASTM	Property	Typical Results
<b>Two Ply Black Pearl System</b>		
ASTM D 146	Breaking Strength, lbf/in	89 MD, 70 XD
ASTM D 146	Elongation, %	46 MD, 64 XD
ASTM E 154, Section 10	Puncture Strength, lbf	202
ASTM D 1004	Tear Strength, lbf	25 MD, 23XD
ASTM D 751, Procedure A	Hydrostatic Resistance, (Mullen), psi	250
ASTM E 96	Water Vapor Permeance, (desiccant), perms	0.04
ASTM C 83C, TAS 114 (D)	Bonded Pull, lbs/ft <sup>2</sup>	200
ASTM C 836	Adhesion Strength, lbf/in, (CMU)	1.5
FM 4474/TAS 114D	Wind Uplift Resistance, psf	200
ASTM C 1305	Low Temp crack bridging, °F	PASS -15°F (-26°C)
ASTM C 1522	Extensibility after Heat Aging	PASS
ASTM D 2939 Section 15	Resistance to water, visual	PASS
ASTM C 836	Remain in place during Application, visual	PASS
ASTM E 154/AC 29, 3.2	Resistance to decay, AC 29	PASS
<b>Black Pearl Primer•Adhesive (BP•PA)</b>		
ASTM C 1250	Solids Content % (Rule 66 Solvent)	77
ASTM D 3960	VOC content, gms/L, Rule 66, Flammable.	<250
ASTM D 36	Softening Point, °F	220°F (104°C)
ASTM D 5	Penetration, 100g @77°F, dmm	162
<b>Black Pearl Waterproofing Membrane (BP•WM)</b>		
ASTM D 1117	Thickness, mils	55
ASTM D 146	Breaking Strength (Load), lbf/in	45 MD, 38 XD
ASTM D 146	Elongation, %	28 MD, 59 XD
ASTM E 154 Section 10	Puncture Strength, lbf	135
ASTM E 154	Peak Deflection, in.	2
ASTM D 1004	Tear Strength, lbf	16 MD, 14 XD
ASTM D 5147	Low Temp. Flex, °F	-58°F (-50°C)
ASTM D 5	Penetration, (25°C, 100g, 5 sec), dmm	160

Passes the ICC-ES AC 29 table 1 for use as waterproofing and dampproofing over concrete, CMU and plywood.  
Meets or exceeds ASTM D 6769.



## Made in the USA

At Barrett Company we believe “Made in America” still means something special: quality, dependability, safety, reliability – products that feature the most advanced technologies and the best value. When you buy American you not only buy the best, you help our country curb import-export imbalances, grow employment, calm inflation and strengthen our industrial infrastructure. All of our products are proudly Made In America.

For further information,  
please check our website.  
To meet with a local  
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®

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AND THE WEATHER  
SINCE 1928

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## Other Quality Products and Services from the Barrett Company

- Ram Tough 250® and XL Rubberized Asphalts
- Ram Cold Tar® Restoration Systems
- Ram Tough Elastomeric BUR Systems
- Barrett Specification Reroof Systems
- Greenroof•Roofscapes®
- EcoCline® Greenroofs
- Coatings and Mastics
- Polyester and Fiberglass Fabrics
- Highway Membrane for Bridge  
and Parking Decks
- Thermography Services

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