**HydroGap® SA Drainable Self-Adhered Housewrap: CONTINUOUS AIR BARRIER SYSTEM**

**PART 1 GENERAL**

1.1 SECTION INCLUDES

 Specifier Note: “Weather barrier assembly” has been used throughout the document. A weather barrier is a weather-resistant membrane for vertical building envelope protection that will maintain air/moisture resistance while maintaining moisture-vapor permeability. The assembly consists of the following three components.

1. Weather barrier membrane (Benjamin Obdyke HydroGap® SA housewrap)
2. Flashing (Benjamin Obdyke HydroFlash® UV+ Self-Adhered Flashing, HydroFlash® LA liquid applied flashing, or HydroFlash® GP Self-Adhered Flashing)
3. Adhesive/Sealant
	1. REFERENCES
4. ASTM International

ASTM D5034; Test Method for Dry Tensile Strength

ASTM E84; Test Method for Surface Burning Characteristics of Building Materials

ASTM E96; Test Method for Water Vapor Transmission of Materials

ASTM E2178; Test Method for Air Permeance of Building Materials

ASTM D882; Test Method for Tensile Strength

ASTM D1970; Test Method for Water Penetration around nails

ASTM D3330 F; Test Method for Peel Adhesion, Thermal Cycling

ASTM G154; Test Method for Accelerated UV Aging

ASTM C765; Test Method for Cold Temperature Pliability

1. AATCC – American Association of Textile Chemists and Colorists

Test Method 127 Water Resistance: Hydrostatic Pressure Test

1.3 SUBMITTALS

1. Refer to Section [01 33 00 Submittal Procedures] [insert section number and title].
2. Product Data: Submit manufacturer current technical literature for each component.
3. Samples: Weather Barrier membrane, minimum 8-1/2 inches by 11 inch.
4. Quality Assurance Submittals

*Specifier Note: Article below should include statements of prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate article below with Division 1 Quality Assurance Section.*

1.4 QUALITY ASSURANCE

1. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

*Specifier Note: Retain paragraph below if mock-up is required.*

1. Mock-Ups: [Specify requirements for mock-up.].
	1. Subject to acceptance by owner, mock-up may be retained as part of finish work.
	2. If mock-up is not retained, remove and properly dispose of mock-up.

*Specifier Note: Retain paragraph below if pre-installation meeting is required.*

1. Pre-installation Meetings: [Specify requirements for meeting.].

*Specifier Note: Article below should include specific protection and environmental conditions required during storage. Coordinate article below with Division 1 Product Requirements Section.*

1.5 DELIVERY, STORAGE & HANDLING

1. General: Comply with Division 1 Product Requirement Section.
2. Delivery: Deliver materials in manufacturer’s original, unopened, undamaged containers with identification labels intact.
3. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

*Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section. Use this article to require special or extended warranty or bond covering the work of this section.*

1.6 WARRANTY

1. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
2. Manufacturer’s Warranty: Submit, for Owner’s acceptance, manufacturer’s standard warranty document executed by authorized company official. Manufacturer’s warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

*Specifier Note: Coordinate subparagraph below with manufacturer’s warranty requirements.*

1. Warranty Period: 15 years, beginning with date of substantial completion.
	1. 20 years, with use of full system requirements (HydroGap® SA, HydroFlash®)

**PART 2 PRODUCTS**

*Specifier Note: Retain article below for proprietary method specification. Add product attributes and performance characteristics, material standards and descriptions as applicable. Use of such phrases as “or equal” or “or approved equal” or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining “or equal” products.*

2.1 WEATHER RESISTIVE BARRIER

*Specifier Note: Retain or delete paragraph(s) below per project requirements and specifier’s practice.*

1. Manufacturer: Benjamin Obdyke Incorporated.
2. Contact: 400 Babylon Road, Suite A, Horsham, PA 19044; Telephone: (800) 523-5261; Fax: (215) 672-3731; E-mail: techsupport@benjaminobdyke.com; website: [www.benjaminobdyke.com](http://www.benjaminobdyke.com).)
3. Proprietary Products/Systems: Weather Resistive Barrier, including the following:
4. HydroGap® SA Drainable Self-Adhered Housewrap General Characteristics
	* 1. Description: polypropylene non-woven with proprietary continuous acrylic adhesive
		2. Appearance: tan substrate with 1mm spacers
		3. Drainage space: 1mm
		4. Material: Polypropylene
		5. Width: 57in (1.45 m).
		6. Length: 80 ft (24.38 m).
		7. Weight: 30 lbs/roll
5. HydroGap® SA Drainable Self-Adhered Housewrap Performance Characteristics
	* 1. UV Resistance: UV exposure for 120 days
		2. Air Penetration: 0.011 L/(sm2) at 75 psi, when tested in accordance with ASTM E2178.
		3. Water Vapor Transmission: 12 perms, when tested in accordance with ASTM E 96, Method A.
		4. Water Penetration Resistance: 55 cm for 5 hours when tested in accordance with AATCC Test Method 127.
		5. Moisture Drainage: 96% drainage efficiency
		6. Tensile Strength: 68.3lbf MD, 60.1 lbf CD, when tested in accordance with ASTM D5034-95.

*Specifier Note: Edit Article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.*

2.2 PRODUCT SUBSTITUTIONS

1. Substitutions: No substitutions permitted.

*Specifier Note: Specify subordinate or secondary items that aid and assist primary products specified above or are necessary for preparation or installation of those items.*

2.3 ACCESSORIES

1. Provide the following accessories:
2. Flashing Option 1: HydroFlash® UV+ Self-Adhered Flashing
	1. HydroFlash® UV+ Self-Adhered Flashing Characteristics:
		1. Description: specially-formulated self-adhered flashing for Benjamin Obdyke water resistive barriers. Continuous, breathable acrylic adhesive
		2. Vapor permeable: 4 perms
		3. UV Rating: 365 days before cladding application
		4. Material: black, unprinted polypropylene nonwoven film with acrylic adhesive.
		5. Width:[ 4; 6] inches (101.6; 152.4; 228.6 mm)
		6. Length: 82 feet (25 m)
		7. Thickness: 16 mil (406.4 microns)
3. Flashing Option 2: [HydroFlash® LA Liquid Applied Flashing]
	1. HydroFlash® Liquid Applied Flashing Characteristics:
		1. Description: specially-formulated liquid applied flashing for Benjamin Obdyke water resistive barriers.
		2. Material: STPU compound
		3. Cured Thickness: 20-40 mils
		4. Vapor permeable: 4 perms
4. Flashing Option 3: [HydroFlash® GP Self-Adhered Flashing]
	1. HydroFlash® Self-Adhered Flashing Characteristics:
		1. Description: specially-formulated self-adhered flashing for HydroGap Drainable Housewrap.
		2. Material: polyethylene film with acrylic adhesive.
		3. Width:[4; 6; 9] inches (101.6; 152.4; 228.6 mm)
		4. Length: 82 feet (26.8 m)
		5. Thickness: 14 mil (355.6 microns)
5. Material Standard: [butyl-based adhesive or synthetic based adhesive must be approved by Benjamin Obdyke for use with HydroGap SA per installation instructions.]
	1. Manufacturer: [Acceptable to manufacturer of HydroGap SA] [Benjamin Obdyke].
6. Fasteners: min 3/8” cap staples, cap nails, or T50 staples may be used if needed
	1. [Acceptable to manufacturer of HydroGap SA] [Benjamin Obdyke].
7. Primer/Adhesives/Sealants: single component primer maybe used to increase surface energy of substrate and must be compatible with acrylic adhesive
	1. [Acceptable to manufacturer of HydroGap SA Housewrap] [Benjamin Obdyke].

**PART 3 EXECUTION**

*Specifier Note: Revise article below to suit project requirements and specifier’s practice.*

3.1 MANUFACTURER’S INSTRUCTIONS

1. Comply with the instructions and recommendations of the manufacturer.

*Specifier Note: Specify actions to physically determine that conditions are acceptable to receive primary products of the section.*

3.2 EXAMINATION

1. Site Verification of Conditions:
	1. Verify that site conditions are acceptable for installation of housewrap.
	2. Do not proceed with installation of housewrap until unacceptable conditions are corrected.

*Specifier Note: Coordinate article below with manufacturer’s recommended installation requirements.*

3.3 INSTALLATION

1. Basic Installation
	1. Using a chalk line, establish a “control line” to use as a guide for the top edge of the first course of HydroGap® SA. Follow this control line as you install the first course to minimize wrinkles and ensure maximum contact with the sheathing.
	2. Starting from the upper corner, peel 24 in. of the release liner from the back of HydroGap® SA to expose the adhesive. Place the exposed adhesive corner to the edge of the “control line” to install the first course. (Option) you may fasten the exposed corner with a staple or cap fastener to hold in place as you continue with the next step.
	3. Once the corner is firmly in place, pull the rest of the release liner at a 45˚ angle as you work to unroll the wrap along the wall. Verify alignment and begin to smooth starting from the center of HydroGap SA and work to the edges. Adhesive can be repositioned on the sheathing to verify maximum contact and reduce wrinkles and air pockets.
	4. Once the course is in place, use a j-roller or other application tool to apply firm, even pressure to fully adhere the wrap to the sheathing.
	5. Repeat the same steps for consecutive courses, shingling over as you work up the wall. Overlap requirements are as follows: horizontal overlaps 4 inches, vertical overlaps 6 inches, and 12 inches around the corners.
2. Window Preparation
	1. When wrapping the structure in HydroGap SA, avoid rolling/applying pressure to the top of windows and doors, this will ensure the proper shingle lapping of self-adhered flashing tape.
	2. At each window opening, cut an “I” shape into the housewrap. Cut housewrap above the top corners 45 degrees away from window opening to account for flashing width.
	3. Fold side flaps into rough opening. Cut and apply pressure allowing the adhesive to stick to the jambs
	4. Fold up top trapezoid shape “flap” and stick a strip of the adhesive backer underneath, keeping the flap from sticking to the sheathing. Using a roller or hand applicator, apply 6” HydroFlash® to the exterior of the sill, extending 6” past each jamb.
	5. To properly flash the sill, cut and install corner patch flashing (bowties) or use HydroCorners®, BowTie Corner Patches, or HydroFlash® LA for the entire sill and corners.
	6. (Optional) Install sloped sill or back dam (optimal slope 1/4”), except when using approved pre-manufactured sill pan.
	7. Install pre-cut 6” HydroFlash over prepared corners/sill. Install HydroFlash to extend at least 6” up the side of each jamb inside the window opening.
	8. Install a minimum width of 9" HydroFlash® at the sill location for a conventional 2" x 4" framed wall. Two pieces of 6" HydroFlash® can be used with thicker wall cavities.
	9. Apply caulk/sealant at jambs and head.
	10. Install flanged window.
	11. Install HydroFlash® to the side jambs. Surfaces should be clean and dry. Self adhered flashing should be applied using firm pressure with a hand applicator.
3. Flanged Window Installation
	1. Install Sill Flashing System\*.
	2. Apply caulk/sealant at jambs and head.
	3. Install Flanged Window\*\*.
	4. Install Jamb Flashing.
	5. Install HydroFlash® header flashing. Surface should be clean and dry. Self-adhered flashing should be applied with pressure using a hand applicator or roller
	6. Fold top flap down removing the adhesive backer. Using a roller or hand applicator, apply pressure to HydroGap® SA activating the acrylic adhesive over the head flashing.
	7. Apply HydroFlash® at the diagonal relief cuts
4. Special Considerations
	1. Flash other wall penetrations (such as outlets, exhaust vents, etc.) with proper shingling technique to maintain drainage to the exterior.
	2. To achieve 20 YEAR PRODUCT AND LABOR LIMITED WARRANTY:
		1. Option 1: HydroFlash® UV+, LA, or GP must be used for all penetrations. HydroCorner is optional.

3.4 PROTECTION

1. Protect installed work from damage due to subsequent construction activity on the site.

**END OF SECTION**