

HYDROGAP™ DRAINABLE HOUSEWRAP**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 five components.

- A. Weather barrier membrane (Benjamin Obdyke HydroGap® Drainable Housewrap)
- B. Seam Tape (Benjamin Obdyke HydroFlash® 2.3" Sealing Tape)
- C. Flashing (Benjamin Obdyke HydroFlash® [4", 6", 9"])
- D. Fasteners
- E. Adhesive/Sealant (per "Approved Compatible Products" list for HydroGap Drainable Housewrap)

1.2 REFERENCES

- A. 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 E2273; Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies
- B. AATCC – American Association of Textile Chemists and Colorists
 - Test Method 127 Water Resistance: Hydrostatic Pressure Test

1.3 SUBMITTALS

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

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

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

- B. 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.

- C. 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

- A. General: Comply with Division 1 Product Requirement Section.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. 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

- E. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- F. 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: 10 years, beginning with date of substantial completion and adherence to manufacturer's installation instructions.
- 2. Enhanced Warranty Option: 15 years, covering product and labor. HydroGap 15 year system warranty requires: HydroGap® Drainable Housewrap, HydroFlash for windows and other penetration flashing, and cap fasteners. Optionally, use HydroCorner in addition to HydroFlash to protect window sill. If taping housewrap seams, HydroFlash 2.3" width (or greater) must be used. Taping of house wrap seams not required for 10 or 15 year warranty per installation guidelines.

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.

- A. Manufacturer: Benjamin Obdyke Incorporated.
 - 1. Contact: 400 Babylon Road, Suite A, Horsham, PA 19044; Telephone: (800) 523-5261; Fax: (215) 672-3731; E-mail: info@benjaminobdyke.com; website: www.benjaminobdyke.com.)
- B. Proprietary Products/Systems: Weather Resistive Barrier, including the following:
 - 1. HydroGap™ Drainable Housewrap General Characteristics
 - a. Description: tri-laminate substrate (2 layers of nonwoven with water-holdout film layer in between) with 1mm thermopolyolefin (TPO) spacers adhered to it to allow for a drainage gap.
 - b. Material: Polypropylene
 - c. Width: 5 ft (1.52 m).
 - d. Length: 100 ft (30.48 m).
 - e. Thickness: 0.05 inches (1.3 mm).
 - f. Weight: 17 lbs/roll
 - g. Spacer Design: 175 spacers per sq. ft.
 - 2. HydroGap™ Drainable Housewrap Performance Characteristics
 - a. Air Penetration: 0.0082 L/(sm²) at 75 psi, when tested in accordance with ASTM E2178.
 - b. Water Vapor Transmission: 16.1 perms, when tested in accordance with ASTM E 96, Method A.
 - c. Water Penetration Resistance: 55 cm for 5 hours when tested in accordance with AATCC Test Method 127.
 - d. Tensile Strength: 58.0 MD, 50.6 CD, when tested in accordance with ASTM D5034.
 - e. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: 0, Smoke Developed: 75.
 - f. Drainage Efficiency 96%, when tested in accordance with ASTM E2273.

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

- A. Substitutions: No substitutions permitted.

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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

A. Provide the following accessories:

1. Taping of housewrap seams is not required. If taping seams, HydroFlash® 2.3 in must be used.
 - a. HydroFlash® 2.3 in Characteristics:
 - i. Description: specially-formulated self-adhered flashing for HydroGap Drainable Housewrap.
 - ii. Material: polyethylene film with aggressive acrylic adhesive.
 - iii. Width: 2.3 inches (60 mm)
 - iv. Length: 82 feet (25 m)
 - v. Thickness: 11.5 mils
 - b. Manufacturer: [Acceptable to manufacturer of HydroGap Drainable Housewrap] [Benjamin Obdyke].
2. Flashing: [HydroFlash™ Self-Adhered Flashing]
 - a. HydroFlash™ Self-Adhered Flashing Characteristics:
 - i. Description: specially-formulated self-adhered flashing for HydroGap Drainable Housewrap.
 - ii. Material: polyethylene film with aggressive acrylic adhesive.
 - iii. Width:[4; 6; 9] inches (100; 150; 230 mm)
 - iv. Length: 82 feet (25 m)
 - v. Thickness: 11.5 mils
 - b. Material Standard: [acrylic adhesive must be approved by Benjamin Obdyke for use with HydroGap Drainable Housewrap per installation instructions.]
 - c. Manufacturer: [Acceptable to manufacturer of HydroGap Drainable Housewrap] [Benjamin Obdyke].
3. Sill Flashing:
 - a. Benjamin Obdyke HydroCorner™ rigid sill corner flashing and HydroFlash Self Adhered Flashing [6", 9"] or
 - b. [Acceptable to manufacturer of HydroGap Drainable Housewrap] [Benjamin Obdyke].
4. Fasteners:
 - a. [Acceptable to manufacturer of HydroGap Drainable Housewrap] [Benjamin Obdyke].
5. Adhesives/Sealants:
 - a. [Acceptable to manufacturer of HydroGap Drainable Housewrap] [Benjamin Obdyke].

PART 3 EXECUTION

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

3.1 MANUFACTURER'S INSTRUCTIONS

- A. 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

- A. 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

- A. Basic Installation
1. Unroll HydroGap™ Drainable Housewrap with blue spacers facing to the exterior and fasten to sheathing with nails, staples or cap fasteners.
 2. Fasteners should provide a minimum ½" penetration into the nail base and be spaced approximately 12 to 18 inches apart along the horizontal and vertical laps. Fasten every 3 sq. ft elsewhere.
 3. HydroGap Drainable Housewrap should be installed shingle lap fashion (i.e. begin installation at the base of the wall assembly). Extend housewrap a minimum 2" over sill plate.
 4. Overlap all horizontal seams by at least 4 inches, all vertical seams by at least 6 inches and corners by 12".
 5. Be sure that the housewrap installation and flashing provide for positive drainage to the exterior of the assembly.
 6. Do not allow the housewrap to be exposed to sunlight in excess of 120 days. Recommended coverage within 30 days.
 7. Taping of seams is NOT REQUIRED. If you must tape seams, HydroFlash 2.3 in or greater width must be used.
- B. Window Preparation
1. Wrap the entire building including window and door openings*.
 2. At each window opening, cut an "I" shape into housewrap. Cut housewrap above top corners 45 degrees away from window opening to account for flashing width.
 3. Fold side and bottom flaps into rough opening and cut/fasten.
 4. Fold up top trapezoid shaped "flap" and secure temporarily with tape prior to installing window.

*Alternatively, the housewrap can be applied after the windows are installed and flashed. Slip housewrap under loose sill flashing for proper shingling.

- C. Flanged Window Installation
1. Install Sill Flashing System*.

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2. Apply caulk/sealant at jambs and head.
3. Install Flanged Window**.
4. Install Jamb Flashing.
5. Install Header Flashing.
6. Fold top flap back down on top of flashed header window flange and tape diagonal cuts.

*Flash windows and doors according to building code requirements.

**Install windows, doors and flashing as per manufacturers' installation instructions.

D. Special Considerations

1. Flash other wall penetrations (such as outlets, exhaust vents, etc.) with proper shingling technique to maintain drainage to the exterior.
2. Tape all tears and holes that may have been inadvertently introduced during the construction process.
3. HydroGap can be installed in any direction with the spacers facing to the exterior and still maintain its drainage characteristics.
4. When installing HydroGap as the *primary air barrier*, consider the following:
 - i. Tape all seams with HydroFlash 2.3"
 - ii. Seal the bottom of the first course to the foundation
 - iii. Seal the top of the last course to the sheathing or top plate
 - iv. Tape/seal all penetrations and tears
 - v. Use cap fasteners

3.4 PROTECTION

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

END OF SECTION