

WaterAlley Features & Benefits:

WaterAlley Rainscreen Components:

"America's Only Rainscreen with Water Resistant Filter Fabric"



Moisture Resistant Filter Fabrics



- Ensures a Clear Drainage Path
- Supports Uniform Thickness in Stucco / Mortar
- Enhanced Key or grab of Stucco / Mortar to Lath
- Distributes Point Load Compression in Siding Material Applications
- Keeps Wet Cladding Away from Weather Resistive Barriers

Testing:

Boat Test

- H₂O vapor transfer in 12 minutes
- 96 hours no water passed through the membrane
- Equal to 4 Days

Hydrostatic Pressure Test - AATCC-127

- 10cm / 18 hours

- 3.5" equal to a 70 mile an hour wind

Acceptance Criteria AC-38 for Water Resistive Barriers

- Passes section 4.2.2 Ponding Water Test
- Approved CCMC method

Water Vapor Transmission ASTM E-96

- Exceeds 247 Perms

Retains H2O resistance after stucco / mortar application.

Drainage Mat Core:



WaterAlley 716



WaterAlley 5169

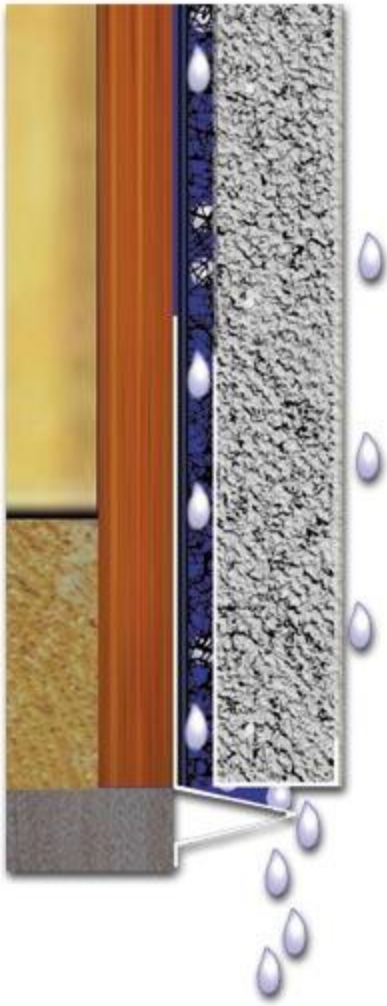
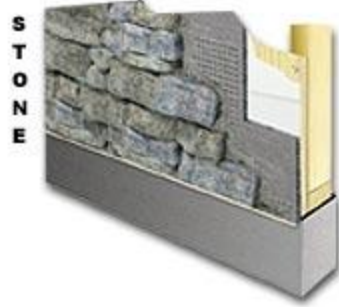
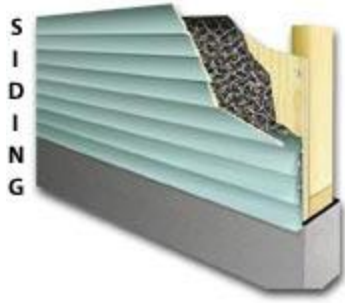


WaterAlley 11 mm

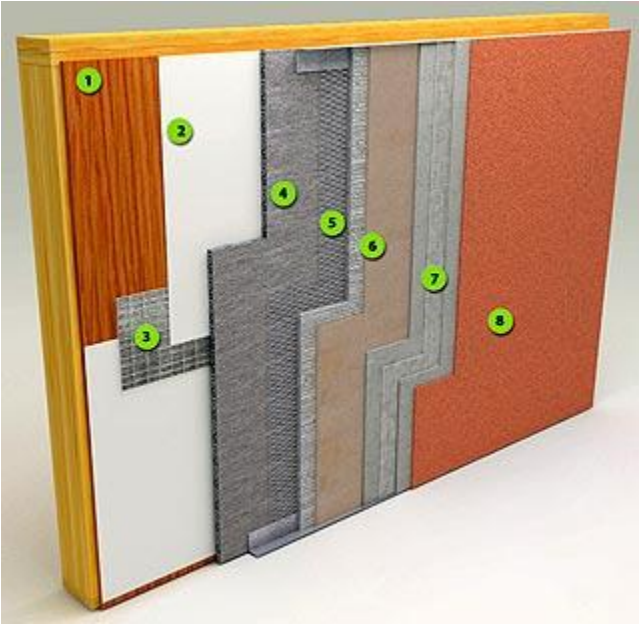
- Creates Space (varying thicknesses)
- Provides Rigidity / Compressive Strength
- Creates Cushion Between Building & Cladding Assembly
- 90% Open Space within Cavity

WaterAlley Rainscreen Benefits:

- Water Drainage & Movement
- 50 times Faster at Draining Water than Cladding attached direct to WRB
Test Compared Wrinkled House-wrap vs. WaterAlley Rainscreen
- Provides a Capillary Break to Drain Liquid Water
- Offers Continuous Ventilation of the Cavity
Air Flow by Convection –
The Cold Air Warms & Rises
Warmer Air Carries Higher Levels of Water Vapor
- Un-interrupted Space – Helps to Equalize Pressure in the Wall
Not a Chambered Cavity like Strapping or Furring Systems
- Creates a Cushion Between the Building and Cladding
Reduces Stress & Cracks
- Simple Interface with Adjacent Material
Easy to Detail, No furring of Windows / Doors / etc...
- No Special Training or Skills in Labor Force
Just hammer staple to the Wall with corrosion resistant staples
- Efficiencies in Installation Compress Construction Schedules
Competitive Cost vs. Alternative methods - Furring / Strapping
Value Engineering – Most Competitive Rainscreen Method
- Broad Temperature Range – High 250 Degrees F / Low -100 Degrees F
- Class “A” Fire Rated No need for fire blocking
- Exceeds AC-24 Drainage Criteria for EIFS
- Thermal Break Between Cladding & Building
- LEED Points / Green Build Advantage
Sustainability - Increase Service Life
Post Consumed PP @ 40%
- Insurability – Saves Money on Insurance Premiums
- Meets Canadian Code Requirements – WaterAlley 11mm / 716
- Complete Testing, Specifications, Details & BIM objects



WaterAlley Drainable Stucco Assembly



1. Substrate / Sheathing
2. Weather Resistive Barrier (WRB)
3. Therm-Flash (peel & stick) - optional
4. WaterAlley Rainscreen Drainage Mat
5. Lath
6. Scratch & Brown Coat (stucco)
7. Base Coat & Reinforcing Mesh - optional (PRM or Stuc-O-Base)
8. Stuc-O-Flex Elastomeric Acrylic Finish or Europlast / Euroseal

ICC / IRC Code Mandates:

Exterior wall envelopes are required to be weather-resistant and **provide a means for draining water that enters the assembly.**



Healthier Walls Through Rainscreen & Ventilation



"Create Some Space Between Your Building And The Elements"

Fundamental theory in cladding integrity prevents liquid water from penetrating vertical walls, ideally through appropriate materials selection, architectural detailing and professional installation consistent with specifications and construction documents.

Unfortunately, we can all attest to the increased frequency of problems arising from water infiltration and deterioration in exterior envelopes. Particularly, wood framed buildings constructed to more stringent codes appear increasingly susceptible to problems unlike older, drafty and uninsulated walls built decades ago. Avoiding deterioration in older buildings is not a consequence of better resistance to water intrusion, but rather a better ability to dissipate moisture. Forensic evaluations note compromise from moisture penetration increase significantly if water is unable to evaporate or drain, causing accelerated consequential damage. Absent perfect design, execution, materials performance and continued maintenance, inevitably problems can develop.



If we are more susceptible to decay, let's consider requirements for mold / fungi growth:

1. Spores – Present everywhere.
2. Temperatures - Generally above 40 degrees F.
3. Food Source – Most organic materials including wood and paper.
4. Oxygen – Even with low permeance building materials.
5. Water – Varies by species, growth occurs at levels between 20% - 40%.



Depending on project location and climate, the moisture content of even protected building products may fluctuate at levels just below the minimum required for fungal growth. And if one considers four of the five elements needed for mold development are inevitably present at all times, even a small amount of additional water can result in decay, causing deterioration.

If modern construction techniques reduce water vapor diffusion and agree moisture will likely penetrate outside walls, it is important to incorporate a defensive strategy to mitigate the effects of water intrusion and prevent rot.



"Create That Space Through Vertical Wall Drainage Mats"

WaterAlley Rainscreen Drainage Mats provide that additional space for drainage. They also contribute to air circulation and ventilation when properly designed. The combination of water drainage and increased air flow will enhance drying and in turn reduce the damaging effects of water penetration. Building papers and house-wraps are well established in providing some protection against substrate damage. Traditional barriers offer a marginal safeguard, but they do not provide an adequate path for drainage. With siding materials tightly installed against weather resistive barriers, opportunities for drainage and ventilation can be inadequate or even blocked.

ICC and IRC Mandate:

"Exterior wall envelopes are required to be weather - resistant and provide a means for draining water that enters the assembly"



Engineers and designers are exploring various configurations to accommodate the code and remove water from the exterior walls while incorporating some mechanism of ventilation. Enhancing air flow and managing entrapped moisture make sense; the challenge lies in a simple, efficient and cost effective approach.

From Boston to Seattle, WaterAlley drainage mats are finding acceptance with some of the most recognized and distinguished building enclosure specialists in North America. In both new construction and cases of cladding remediation, Drainage Mats accommodate essential criteria in today's construction environment.

"WaterAlley Drainage Mats" consist of a Nylon / Polymer core of fused, entangled filaments in varying thicknesses from a nominal $\frac{1}{4}$ inch to $\frac{3}{4}$ inch depending on desired cavity space and cladding selection. Certain profiles are available with America's only moisture resistive filter fabric bonded to one side, or consider WaterAlley 716 our "Patent Pending" three layer product that creates a code compliant weather resistive barrier (NER-660, CCMC-12892R) and rainscreen in a single application. WaterAlley" Rainscreen mats are equally effective for stucco, EIFS, manufactured & natural stone, fiber-cement, brick, standard lap and cedar sidings and other wall system materials.

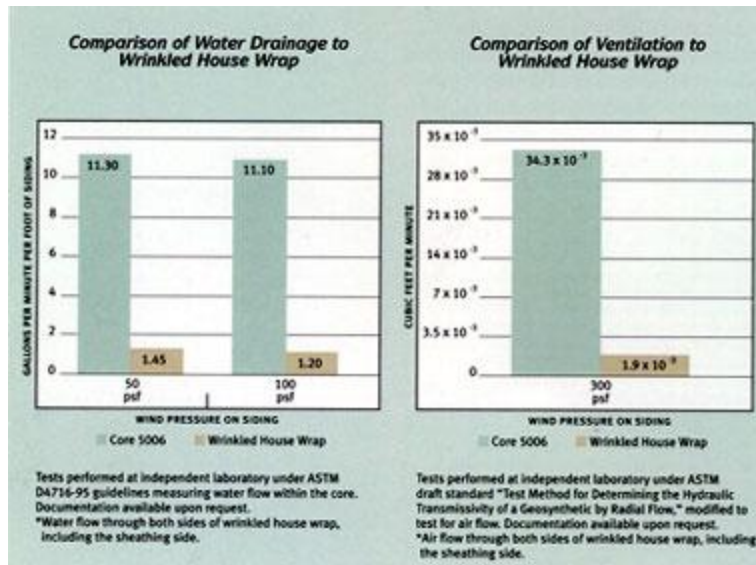


This technique achieves desired results with limited additional expense. WaterAlley Rainscreen Mats run as little as \$.65 a square foot for materials. With varying labor rates it's difficult to offer a specific cost, although it should not be more that \$.95 - \$1.50 (labor & materials) per foot. With over 60 million feet in service and an exponential increase in demand, you can feel confident in this effective approach.

For additional information on "WaterAlley Rainscreen Drainage Mats" including product data sheets, profile samples, test reports, detail drawings, specifications and an animated DVD presentation.

Contact Demand Products, Inc. @ 1-800-325-7540

www.demandproducts.com or e-mail info@demandproducts.com



Note: Surfactants present in some siding materials may decrease water resistance of the secondary moisture barrier if direct contact occurs

WaterAlley Drainage Mats in Roofing Applications

Galvanized metal roofing (zinc coated) is common in commercial building and especially susceptible to corrosion. In any climate, moisture can build up under the roof and cause damage to the structure. WaterAlley mats can be incorporated as a spacer between the metal and roof sheathing providing a passage for moisture drainage while reducing water accumulation which causes corrosion. In cold weather, a cold roof surface is desirable to prevent the build-up of ice and the problems associated with ice dam backup. WaterAlley mats create a thermal break and ventilation layer in the roof where the conduction of heat would normally occur. This characteristic reduces the potential for ice dams.



"Need a vent layer in commercial roofing?"

For many designers the need for a ventilation layer between the roofing shingle or membrane and the insulation has become a standard technique to ensure that moisture does not build up beneath the sheathing. Furring is an expensive way of spacing the insulation from the sheathing and limits ventilation to one direction. This system can now be replaced by a single layer of WaterAlley Rainscreen Mat designed to reduce roof top temperatures while providing maximum insulation efficiency. The mat is rigid enough to support the full weight of the roof and its open structure allows for multi-directional ventilation. For the contractor, the installation of this lightweight product is easy and quick.

