

## WEATHERBOND RBR ADHERED ROOFING SYSTEM

February 2008

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### Details

## WEATHERBOND RBR ADHERED ROOFING SYSTEM

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### PART I GENERAL

#### 1.01 DESCRIPTION

The WeatherBond RBR Adhered Roofing System incorporates WeatherBond RBR 60-mil thick **non-reinforced** (black or white-on-black) or 45-mil, 60-mil or 75-mil thick **reinforced** (black) EPDM membrane. An acceptable insulation is mechanically attached to the roof deck or adhered with urethane-based insulation adhesive or hot asphalt and the EPDM membrane is fully adhered to insulation with WeatherBond RBR LC-60 Bonding Adhesive. Adjoining sheets of EPDM membrane are seamed together using WeatherBond RBR Peel & Stick Seam Tape/Primer. There are no maximum slope restrictions for the application of this roofing system.

#### 1.02 DESIGN CONSIDERATIONS

- A. The following projects should be sent to WeatherBond for review prior to installation and preferably prior to bid to ensure WeatherBond's minimum warranty requirements are met:
1. Air pressurized buildings, canopies, and buildings with large openings where the total wall openings exceed 10% of the total wall area on which the openings are located (such as airport hangars, warehouses and large maintenance facilities).
  2. Cold storage buildings and freezer facilities.
  3. Projects where the building height exceeds 250'.
- B. Petroleum based products; certain chemicals and waste products (i.e., grease, oil, animal fats, etc.) are not compatible with this roofing system. WeatherBond should be contacted for verification of compatibility and recommendations concerning an acceptable roofing assembly.
- C. It is the responsibility of the specifier to review local, state and regional codes to determine their impact on this roofing system.
- D. Coordination between various trades is essential to avoid unnecessary rooftop traffic over completed sections of the roof and to prevent subsequent damage to the membrane roofing system.
- E. Concentrated loads from rooftop equipment may cause deformation of insulation/underlayment and possible damage to the membrane if proper protection is not provided. A protection course or sleepers must be specified.
- F. **Drainage**
1. Drainage must be evaluated by the specifier in accordance with all applicable codes. Slopes may be provided by tapering the structure or through the use of tapered insulation; a sufficient number of roof drains should also be specified and properly located to allow for positive drainage. Significant ponding that could remain after 48 hours should be eliminated with the addition of auxiliary drains in low areas where ponding is anticipated.

**WeatherBond specifically disclaims responsibility for the design and selection of an adequate drainage system and drain accessories. Selection must be made by the building owner or the owner's design professional.**

2. Small incidental areas of ponded water will not impact the performance of this roofing system; however in accordance with industry standards, the roofing assembly **should be designed to prevent ponding** of water on the roof for prolonged periods (longer than 48 hours). Good roofing practice dictates proper drainage to prevent possible excessive live loads and, in the event of a roof leak, to minimize potential interior damage to the roofing assembly and to the interior of the building.
3. **Tapered edge strips, crickets or saddles** are recommended where periodic ponding of water may occur. When the slope of the taper exceeds 2" to one horizontal foot additional membrane securement at the base of the tapered edge strip, cricket or saddle will be required.

4. On **WeatherBond RBR (white-on-black) Adhered Roofing Systems**, a slope greater than 1/8" per horizontal foot is recommended to serve the long-term aesthetics.

#### G. **Construction Generated Moisture**

1. While buildings should ultimately be designed to fit their intended purpose and accommodate their occupants, they must also tolerate various construction conditions (i.e., time of construction, material and process used).

In cold climatic regions, buildings in their construction phase will most likely experience an aggressive upward moisture drive as a result of hydration of freshly poured concrete floors and the practice of using oil or propane fired heaters.

##### **According to NRCA:**

- a. Construction processes can release large quantities of water vapor. For example, wall or ceiling plaster or 4" thick concrete slabs release roughly one quart of water (2 pounds) for each square foot of surface area during the drying process. A building that is 120,000 square feet in size could experience up to 30,000 gallons of construction-generated moisture.
- b. The combustion process of an oil-or propane-fired heater, used for temporary heat during construction, produces more water as a by-product of burning than the weight of the fuel consumed. Approximately one gallon of water will be produced for each gallon of heating oil burned. This generated moisture, if not addressed through ventilation or contained using vapor retarders, will subject the roof assembly to potential harmful effects that vary from mold accumulation to reduced insulation efficiency.

#### 2. **Moisture Migration**

Moisture vapor penetrates a roof assembly either by **air leakage** or by **diffusion**.

- a. **Air leakage** occurs through joints in the metal deck or tilt-up panels, insulation and joints and gaps around penetrations. Air leakage will also occur as a result of imperfections, such as punctures and tears.
- b. **Diffusion** of moisture is caused by the differences in vapor pressure that occur with varying temperature conditions and relative humidities. The greater the temperature differential, the more active the moisture drive.

Air leakage can allow the transport of significantly greater amounts of moisture than can be transported by way of diffusion.

#### 3. **Impact of Air Leakage**

Warm, humid air that infiltrates through gaps and joints will begin condensing beneath the roofing membrane and could freeze in colder temperatures. Hot, humid air will always seek the path of least resistance, thus, insulation joints become the most common route. High levels of moisture condensing along the insulation joints could eventually break the cell structure of polyisocyanurate insulation allowing gases to escape, which in turn promotes board shrinkage and possible edge collapse.

#### 4. **Preventing Moisture Damage**

While occupancy generated moisture is usually addressed through the use of a vapor retarder, construction generated moisture can be addressed by simply incorporating multiple layers of insulation and staggering the joints. This will significantly reduce air leakage, which is responsible for the transport of greater amounts of moisture into the assembly.

NRCA recommends 2 or more layers of roof insulation, which has long been recognized as an advantage in terms of eliminating heat transfer and maximizing roof system efficiency. Studies have also revealed an 8 - 10 % reduction in energy costs between assemblies with equal R-Value when designed with multiple layers versus those designed with a single layer of insulation.

- H. On structural concrete decks, when a vapor retarder is not used, gaps in the deck along the perimeter and around penetrations must be sealed along with vertical joints between tilt-up panels, if present, to prevent infiltration of hot humid air and possible moisture contamination resulting from condensation. This is specifically important when adhesive is used to attach the roof insulation.

- I. **Retrofit - Recover Projects** (when the existing roofing material is left in place)

1. The removal of existing wet insulation and membrane must be specified. The specifier shall select an appropriate and compatible material as a filler for voids created by removal of old insulation or membrane.
2. Entrapment of water between the old and new membrane can damage and deteriorate new insulation/underlayment between the two membranes. **If a vapor retarder or air barrier is not specified**, WeatherBond recommends the existing membrane be perforated to avoid potential moisture accumulation and to allow the detection of moisture to enable the building owner to take corrective action. This can be accomplished by drilling approximately 3/4" diameter holes every 100 square feet in the existing built-up roof or single-ply membrane (excluding PVC membrane).
3. **Existing PVC** membrane may be totally removed or the existing membrane must be cut into maximum 10' by 10' sections. All PVC flashings at the perimeter, roof drains and roof penetrations must be removed.

### 1.03 QUALITY ASSURANCE

- A. WeatherBond recommends the use of WeatherBond supplied products for use with this roofing system. The performance or integrity of products by others, **when selected by the specifier and accepted as compatible by WeatherBond**, is not the responsibility of WeatherBond and is **disclaimed** by the WeatherBond Warranty.
- B. The specified roofing system must be installed by a WeatherBond Authorized Roofing Contractor in compliance with drawings and specifications as approved by WeatherBond.
- C. There must be no deviations made from WeatherBond's specification or WeatherBond's approved shop drawings without the **PRIOR WRITTEN APPROVAL** of WeatherBond.
- D. After completion of the installation, upon request, an inspection shall be conducted by a Field Service Representative of WeatherBond to ascertain that the membrane roofing system has been installed according to WeatherBond's published specifications and details applicable at the time of bid. This inspection is to determine whether a warranty shall be issued. It is not intended as a final inspection for the benefit of the owner.

### 1.04 WARRANTY

- A. A **10 or 15-year WeatherBond System Warranty** is available for roofing systems on commercial buildings within the United States and applies only to **products manufactured or marketed by WeatherBond**. The membrane system is defined as membrane, flashings, adhesives, sealants and other WeatherBond brand products utilized in the installation.
- B. The warranty excludes winds including and in excess of gale force measured at roof level.

**CAUTIONS:** Industrial pollutants, environmental dirt, and ponding conditions will discolor the surface of the WeatherBond RBR White-on-Black EPDM membrane. Lack of additional membrane protection during application will increase the probability of soiling the white surface of the WeatherBond RBR EPDM membrane and will affect the aesthetics of the roofing system. All these factors will result in color variations of the WeatherBond RBR EPDM membrane in comparison to the original undisturbed membrane. When aesthetics are of importance, the specifier's requirements must be added in the project specifications pertaining to precautionary installation methods and necessary clean up procedures.

**WeatherBond disclaims responsibility for the cleanliness or discoloration of the membrane system caused by environmental conditions including, but not limited to, dirt, pollutants, biological agents and discoloration caused by or resulting from the initial installation.**

#### C. Access for warranty service

It shall be the owner's responsibility to expose the membrane in the event warranty service is required when access is impaired. Such impairment includes, but is not limited to:

1. Design features, such as window washer systems, which require the installation of traffic surface units in excess of 80 pounds per unit.
2. Any equipment, ornamentation, building service units and other top surfacing materials, which are not defined as part of this

specification.

3. Rooftop equipment that does not provide WeatherBond with reasonable access to the membrane system for purposes of warranty investigation and related repairs.
4. Severely ponded conditions.

**CAUTION:** APPLICATIONS SUCH AS WALKING DECKS, TERRACES, PATIOS OR AREAS SUBJECTED TO CONDITIONS NOT TYPICALLY FOUND ON ROOFING SYSTEMS WILL **NOT** BE ELIGIBLE FOR A MEMBRANE SYSTEM WARRANTY.

- D. The formation or presence of mold or fungi in a building is dependent upon a broad range of factors including, but not limited to, the presence of spores and nutrient sources, moisture, temperatures, climatic conditions, relative humidity, and heating/ventilating systems and their maintenance and operating capabilities. These factors are beyond the control of WeatherBond and WeatherBond shall not be responsible for any claims, repairs, restoration or damages relating to the presence of any irritants, contaminants, vapors, fumes, molds, fungi, bacteria, spores, mycotoxins, or the like in any building or in the air, land, or water serving the building.

## **1.05 CODE APPROVALS**

Building codes are above and beyond the intended purpose of this specification. The respective **owner** or **specifier** should consult local codes for applicable requirements and limitations.

## **1.06 ROOF DECK/SUBSTRATE CRITERIA**

- A. Proper decking shall be provided by the building owner. The building owner or its designated representative must ensure that the building structure is investigated by a registered engineer to assure its ability to withstand the total weight of the specified roofing system, as well as construction loads and live loads, in accordance with all applicable codes. The specifier must also designate the maximum allowable weight and location for material loading and storage on the roof.
- B. For direct application over an acceptable roof deck/substrate, the substrate must be smooth, steel trowel finished (structural concrete), free of debris, protrusions, sharp edges and loose and foreign material. Cracks or voids in the substrate, greater than 1/4", must be filled with an appropriate material.
- C. On retrofit projects, all existing phenolic insulation must be removed.
- D. The following chart identifies the **acceptable roof decks/substrates** and the **minimum underlayment** requirements for the WeatherBond RBR Adhered Roofing System.

Construction Type	Acceptable Roof Deck/Substrate	Minimum Underlayment
<b>New Construction</b>	Steel (1)	Insulation
	Structural Concrete (minimum 3000 psi)	Direct Application
	Plywood (minimum 15/32" thick) or Oriented Strand Board (minimum 7/16" thick)	Direct Application
	Wood Planks (minimum 3/4" thick)	Direct Application
<b>Retrofit/No Tearoff</b>	Existing Smooth Surface BUR or Mineral Surface Cap Sheet	Direct Application (2)
	Gravel Surfaced BUR (3)	Insulation
	Coal Tar Pitch (3) (4)	Insulation (6)
	Modified Bitumen	Direct Application (5)
	Existing Single-Ply	Insulation
	Sprayed-in-Place Urethane	Complete Tearoff Required
<b>Retrofit/Tearoff</b>	Existing roof material removed (regardless of deck type)	Insulation
<b>Notes:</b> <ol style="list-style-type: none"> <li>(1) Local codes must be consulted regarding thermal barrier requirements.</li> <li>(2) WeatherBond RBR black membrane Adhered Roofing Systems may be applied directly to the substrate providing asphalt on existing smooth surfaced built-up roof has a softening point above 185° F (85° C). WeatherBond RBR white-on-black membrane Adhered Roofing Systems are not recommended for direct application to the substrate due to possible staining of the membrane surface.</li> <li>(3) Loose gravel must be removed to avoid entrapment of moisture.</li> <li>(4) Existing coal tar could drip into the building, especially when new insulation does not provide sufficient thermal value to prevent the surface of the coal tar from softening.</li> <li>(5) Direct application permitted over smooth surfaced modified bitumen. Membrane shall be positioned with length of sheets parallel to modified bitumen field seams. At end laps or other locations where EPDM seams intersect modified bitumen field seams, 6" wide EPDM or Peel &amp; Stick Uncured Flashing must be applied over intersections.</li> <li>(6) If insulation is specified to be secured to an existing coal tar pitch roof with urethane-based insulation adhesive or hot asphalt, minimum 1.4" thick polyisocyanurate insulation is the required minimum thickness when WeatherBond RBR (black) EPDM is specified. Minimum 1" thick polyisocyanurate is the required minimum thickness when WeatherBond RBR (white-on-black) EPDM is specified.</li> </ol>		

## 1.07 WOOD NAILERS

A **horizontal wood nailer** is used to provide an effective substrate for some installation details and for other roof accessories. In addition, it is used to provide solid protection for the edge of the membrane underlayment. Minimum thickness of the nailer must be such that the top of the nailer is relatively flush with the top of the membrane underlayment.

- A. Wood nailers are required for securement of metal edgings and scuppers, certain curbs, Penetration Pockets, pipes, etc., as shown on the applicable detail. **Parapet walls and most curbs do not require utilization of wood nailers.**

**Note:** The width of nailers must exceed the width of metal flange of edgings, scuppers, etc.

- B. When treated lumber is specified, it is recommended that only lumber, which has been pressure treated with salt preservatives be specified. Lumber treated with any of the wood preservatives such as, Creosote, Pentachlorophenol, Copper Naphthenate and Copper 8-quinolinolate will adversely affect the EPDM membrane when in direct contact and are, therefore, **unacceptable**.

If non-treated lumber is to be specified, it must be stored to protect from moisture sources. A seal should be provided between the non-treated lumber and a concrete or gypsum substrate (similar to a sill sealer).

- C. Methods used to fasten the nailer vary with building conditions; however, it is essential that secure attachment of durable stock be accomplished. Factory Mutual Loss Prevention Data Sheet 1-49 (Perimeter Flashing, May 1998) contains options for the spacing and sizing of fasteners.

- D. Wood nailers are not covered by the WeatherBond Warranty.

## 1.08 VAPOR RETARDER

- A. The use of a vapor retarder to protect insulation and reduce moisture accumulation within an insulated roofing assembly should be investigated by the specifier, especially on projects with high interior humidity, such as, swimming pools, breweries, pulp mills, etc.
- B. In the generally temperate climate of the United States, during the winter months, water vapor flows upward from a heated, more humid interior toward a colder, drier exterior. Vapor retarders are more commonly required in northern climates than in southern regions, where downward vapor pressure may be expected and the roofing membrane itself becomes the vapor retarder.
- C. On cold storage/freezer facilities, the perimeter details must be selected to promote an air seal to prevent outside air from infiltrating and condensing within the roofing assembly.
- D. Consult the latest publications by ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.) and NRCA (National Roofing Contractors Association) for specific information.

## PART 2 PRODUCTS

### 2.01 GENERAL

The components of this roofing system are to be products of WeatherBond or accepted by WeatherBond as compatible. The installation, performance or integrity of products by others, **when selected by the specifier and accepted by WeatherBond**, is not the responsibility of WeatherBond and is expressly disclaimed by the WeatherBond Warranty.

### 2.02 MEMBRANE

WeatherBond RBR cured non-reinforced or reinforced EPDM (Ethylene, Propylene, Diene Terpolymer) compounded elastomer.

**Non-Reinforced EPDM membrane** is available in **(black)** or **(white-on-black)**. White membrane must be installed with the white surface facing up. **Reinforced EPDM is available in black only.**

- A. **Non-Reinforced EPDM Membrane** – refer to the physical properties listed on the following pages:

**WeatherBond RBR (black) 45 or 60-mil thick non-reinforced EPDM membrane** - maximum 50' wide, maximum 100' long (additional lengths available dependent on membrane thickness and width). Conforms to ASTM D4637, Type I (non-reinforced).

**WeatherBond RBR (white-on-black) 60-mil thick non-reinforced EPDM membrane** - maximum 10' wide, maximum 100' long, which meets ASTM D4637, Type I.

**Notes:** When non-reinforced membrane is specified, WeatherBond recommends minimum 60-mil thick material. Non-reinforced 45-mil thick membrane may be used when specified.

Non-Reinforced membrane sheets wider than 16-1/2' are folded prior to packaging and may contain factory-induced wrinkles. When adhering the membrane, care must be exercised to avoid wrinkles at field seams.

- B. **Reinforced EPDM Membrane (black only)** – contact WeatherBond for physical properties:

**WeatherBond RBR (black) 45 and 60-mil thick reinforced EPDM membrane** - 4-1/2', 7', 8' or 10' wide, maximum 100' long, reinforced membrane (10' wide 45-mil thick membrane is also available in lengths of 200') with polyester fabric. Conforms to ASTM D4637, Type II (reinforced).

**WeatherBond RBR (black) 75-mil thick reinforced EPDM membrane** - 10' wide by 100' long reinforced membrane with enhanced puncture, tear and wind uplift resistance. Conforms to ASTM D-4637, Type II.

**WeatherBond RBR (Black) 45-MIL and 60-MIL THICK NON-REINFORCED EPDM MEMBRANE  
STANDARD AND FIRE RETARDANT (FR)**

Physical Property	Test Method	ASTM SPEC.(Pass)	Typical	
			45-mil Standard	60-mil FR
Tolerance on Nominal Thickness, %	ASTM D 412	±10	±10	±10
Tensile Strength, min, psi (MPa)	ASTM D 412	1305 (9)	1550 (10.7)	1550 (10.7)
Elongation, Ultimate, min, %	ASTM D 412	300	480	480
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624 (Die C)	150 (26.3)	200 (35.0)	200 (35.0)
Factory Seam Strength, min.	Modified ASTM D 816	Membrane Rupture	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging* Properties after 4 weeks @ 240°F (116°C)	ASTM D 573			
Tensile Strength, min, psi (MPa)	ASTM D 412	1205 (8.3)	1500 (10.3)	1500 (10.3)
Elongation, Ultimate, min, %	ASTM D 412	200	225	225
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624	125 (21.9)	215 (37.6)	215 (37.6)
Linear Dimensional Change, max, %	ASTM D 1204	±1.0	-0.4	-0.4
Ozone Resistance* Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain	ASTM D 1149	No Cracks	No Cracks	No Cracks
Brittleness Temp., max, deg. F (deg. C)*	ASTM D 746	-49 (-45)	-67 (-55)	-67 (-55)
Resistance to Water Absorption* After 7 days immersion @ 158°F (70°C) Change in mass, max, %	ASTM D 471	+8.0, -2.0	+2.0	+2.0
Water Vapor Permeance* max, perm	ASTM E 96 (Proc. B or BW)	0.1	.05	.05
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, 7560 kJ/m <sup>2</sup> total radiant exposure at .70 W/m <sup>2</sup> irradiance, 176°F (80° C) black panel temp.	ASTM D 4637 Conditions	No Cracks No Crazing	No Cracks No Crazing	No Cracks No Crazing
* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.				

**WeatherBond RBR (White-on-Black) 60-MIL THICK NON-REINFORCED EPDM MEMBRANE**

Physical Property	Test Method	ASTM SPEC.(Pass)	Typical
Tolerance on Nominal Thickness, %	ASTM D 412	±10	±10
Tensile Strength, min, psi (MPa)	ASTM D 412	1305 (9)	1685 (11.6)
Elongation, Ultimate, min, %	ASTM D 412	300	480
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624 (Die C)	150 (26.3)	200 (35.0)
Factory Seam Strength, min.	Modified ASTM D 816	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging* Properties after 1 week @ 240°F (116°C)	ASTM D 573		
Tensile Strength, min, psi (MPa)	ASTM D 412	1205 (8.3)	1550 (10.7)
Elongation, Ultimate, min, %	ASTM D 412	200	250
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624	125 (21.9)	185 (32.4)
Linear Dimensional Change, max, %	ASTM D 1204	±1.0	-0.5
Ozone Resistance* Condition after exposure to 100 ppm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain	ASTM D 1149	No Cracks	No Cracks
Brittleness Temp., max, deg. F (deg. C)*	ASTM D 746	-49 (-45)	-67 (-55)
Resistance to Water Absorption* After 7 days immersion @ 158°F (70°C) Change in mass, max, %	ASTM D 471	+8.0, -2.0	+3.6
Water Vapor Permeance* max., perms	ASTM E 96 (Proc. B)	0.1	.05
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, 7560 kJ/m <sup>2</sup> total radiant exposure at .70 W/m <sup>2</sup> irradiance, 176°F (80°C) black panel temperature	ASTM D 4637 Conditions	No Cracks No Cracking	No Cracks No Cracking
* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.			

**2.03 INSULATION/UNDERLAYMENT**

- A. Insulation shall be supplied by others and is not included in the coverage provided by the WeatherBond System Warranty.
- B. Roof insulation thickness must be determined by the thermal value required for each project and may be subject to code approval limitations. On projects where a vapor retarder is used, the specifier must calculate the insulation thickness to ensure the temperature at the vapor retarder will not fall below the calculated dew point.
- C. Multiple layers of insulation are recommended with all joints staggered between layers.
- D. Restrictions:
  - 1. WeatherBond Roofing Systems cannot be specified in conjunction with Phenolic Insulation.
  - 2. Fiberglass insulation cannot be specified with WeatherBond's Adhered Roofing System, even if overlaid with additional insulation or membrane underlayment.
  - 3. Do not specify perlite boards directly under the EPDM membrane on WeatherBond's Adhered Roofing System.

**2.04 FASTENERS**

Fasteners for EPDM membrane securement shall be supplied by others and are not included in the coverage provided by the WeatherBond System Warranty.

**2.05 RELATED MATERIALS**

- A. WeatherBond RBR LC-60 Bonding Adhesive, Multipurpose Primer, Peel & Stick Seam Tape, Splice Adhesive, In-Seam Sealant, Lap Sealant, Cured EPDM Flashing, Peel & Stick Uncured Flashing, Uncured Flashing, Seam Fastening Plates and Peel & Stick Reinforced Perimeter Strip are required for use with this roofing system.

- B. Other Products: Pressure-Sensitive Walkway Pads, Pre-Molded Pipe Flashing, Cured EPDM Flashing, Inside/Outside Corners, Pipe Flashings and Pourable Sealer Pockets.

## **PART 3 EXECUTION**

### **3.01 SUBMITTALS/WARRANTY PREREQUISITES**

- A. To ensure compliance with WeatherBond's minimum warranty requirements, the following projects should be forwarded to WeatherBond for review prior to installation, preferably prior to bid.
  - 1. Projects where the building height exceeds 250'.
  - 2. Air pressurized buildings, canopies, buildings with large openings where the total wall openings exceed 10% of the total wall area on which the openings are located (such as airport hangars, warehouses, and large maintenance facilities).
  - 3. Cold storage buildings and freezer facilities.
  - 4. Projects where the EPDM is expected to come in direct contact with petroleum-based products or other chemicals.
- B. Shop drawings must be submitted to WeatherBond by the WeatherBond Authorized Roofing Contractor, along with a completely executed Notice of Award (Copy A of WeatherBond's Job Approval Request Warranty form) for approval. Approved shop drawings are required for inspection of the roof and on projects where on-site technical assistance is requested.

**Shop drawings must include:**

- 1. Outline of roof and size
- 2. Deck type (for multiple deck types)
- 3. Location and type of **all** penetrations
- 4. Perimeter and penetration details
- 5. Key plan (on multiple roof areas) with roof heights indicated

When field conditions necessitate modifications to the originally approved shop drawings, a copy of the shop drawing outlining all modifications must be submitted to WeatherBond for revision and approval prior to inspection and warranty issuance.

- C. **Notice of Completion** (Copy B of the WeatherBond Request for Warranty form)

After project completion, a Notice of Completion must be submitted to WeatherBond to schedule the necessary inspection and acceptance of the project prior to issuance of the WeatherBond warranty.

- D. **As-Built Projects** (roofing systems installed prior to project approval by WeatherBond)

The WeatherBond Authorized Contractor may supply WeatherBond with an As-Built drawing for a project completed prior to WeatherBond's approval. The As-Built drawings:

- a. Must conform to WeatherBond's most current published specifications and details applicable at the time of bid.
- b. Must be submitted along with a completely executed Notice of Completion.
- c. Must include the items identified in Paragraph 3.01.B above.

**Note:** As-Built projects are not recommended for those projects referenced in Paragraph 3.01.A in order to ensure WeatherBond warranty requirements have been met.

### **3.02 GENERAL JOB SITE CONSIDERATIONS**

**Material Safety Data Sheets (MSDS) must be on location at all times during transportation, storage and application of materials. The Contractor shall follow all safety regulations as recommended by OSHA and other agencies having jurisdiction.**

- A. Subject to project conditions, it is recommended to begin the application of this roofing system at the highest point of the project area and work to the lowest point to prevent water infiltration. This will include completion of all flashings, terminations and daily seals.
- B. On phased roofing, temporary closures should be provided to prevent moisture infiltration.

- C. When possible on multiple level roofs, begin the installation on the highest level to avoid or minimize construction traffic on completed roof sections.
- D. On projects at high altitudes (6,000' and above), rapid flash off (drying) of WeatherBond RBR LC-60 Bonding Adhesive and Splice Adhesive will occur due to low atmospheric pressure.

### 3.03 JOB SITE MATERIAL STORAGE AND HANDLING

- A. Deliver materials to the job site in original, unopened containers.
- B. When loading materials onto the roof, the WeatherBond Authorized Roofing Contractor must comply with the requirements of the specifier/owner to prevent overloading and possible disturbance to the building structure.
- C. Job site storage temperatures in excess of 90° F (32° C) may affect shelf life of curable materials (i.e., uncured flashing, adhesives, sealants, primers, Peel & Stick Seam Tape and Peel & Stick Flashing/Accessories).
- D. Cold temperatures will not restrict the installation of this roofing system. **When the temperature is expected to fall below 40° F (5° C),** outside storage boxes should be provided on the roof for temporary storage of liquid adhesives, sealants, primers, Peel & Stick Seam Tape and Peel & Stick Flashing/Accessories. Containers must be rotated to maintain their temperature above 40° F (5° C).

**Note:** Prolonged exposure of Peel & Stick Flashing and Peel & Stick Seam Tape to temperatures below 40° F (5° C) will cause the preapplied adhesive tape to lose tack and in extreme cases, not bond to the substrate. Refer to Paragraph 3.09, Membrane Seaming, for application procedures in colder temperatures.

- E. Do not store adhesive containers with opened lids due to the loss of solvent, which will occur from flash off.
- F. Insulation/underlayment must be stored so it is kept dry and is protected from the elements. Store insulation on a skid and completely cover with a breathable material such as tarp or canvas. If the insulation is lightweight, it should be weighted to prevent possible wind damage.

### 3.04 SUBSTRATE PREPARATION

**Defects in the substrate surface must be reported and documented to the specifier, general contractor and building owner for assessment. The WeatherBond Authorized Roofing Contractor shall not proceed with installation unless defects are corrected.**

- A. **On retrofit - recover projects,** cut and remove wet insulation, as identified by the specifier, and fill all voids with new insulation so it is relatively flush (+/- 1/4") with the existing surface.
  1. **For existing PVC membranes,** if the membrane is not removed, it must be cut into maximum 10' by 10' sections. All PVC flashings at the perimeter, roof drains and roof penetrations must be removed.
  2. When installing this roofing system over an existing **gravel surfaced built-up roof, loose gravel must be removed.** Power brooming is recommended by WeatherBond to remove the loose gravel, which may trap moisture. Any uneven areas of the substrate must be leveled to prevent insulation from bridging.
  3. When installing this roofing system over an existing smooth surfaced modified bitumen, EPDM membrane shall be positioned with the length of sheets parallel to modified bitumen field splices. At end laps or other locations where EPDM splices intersect modified bitumen field seams, "T" Joint Covers or 6" wide Peel & Stick Uncured Flashing must be applied over intersections.
- B. **For all projects** (new or retrofit), the substrate must be relatively even without noticeable high spots or depressions. Accumulated water, ice or snow must be removed to prevent the absorption of moisture in the new roofing components and roofing system.
- C. Prior to the placement of membrane underlayment, clear the substrate of debris and foreign material which may be harmful to the roofing system. Gaps greater than 1/4" must be filled with an appropriate material.

### 3.05 VAPOR RETARDER INSTALLATION

Follow the respective vapor retarder manufacturer's recommended installation procedures and the specifier's instructions for the installation of the product specified.

### 3.06 INSTALLATION OF WOOD NAILERS

- A. Install wood nailers in those locations that have been designated by the specifier and as approved by WeatherBond.
- B. The wood nailer must be installed so the top of the wood nailer is relatively flush (+/- 1/4") with the top surface of the membrane underlayment and the width of the wood nailer exceeds the width of the metal flange (where applicable at edgings, scuppers, etc.) as shown on the appropriate WeatherBond detail.
- C. Follow the specifier's guidelines for the securement of the wood nailers.

### 3.07 INSULATION PLACEMENT AND ATTACHMENT

- A. Do not install more insulation/underlayment than can be covered by membrane and made watertight in the same day.
- B. All insulation boards must be butted together with no gaps greater than 1/4". Gaps greater than 1/4" must be filled with the same material.
- C. When multiple layers of insulation are specified, staggering joints between layers is recommended.
- D. When mechanical attachment of insulation is specified, **WeatherBond Insulation** must be secured to the roof deck with **1 WeatherBond insulation fastener and plate per every 2 square feet** of insulation (refer to Details WBRA-27.1 or 2 for fastening pattern).
- E. Urethane-based insulation adhesive (a spray applied, low-rise adhesive) may be used for insulation attachment in lieu of mechanical securement. Contact the respective manufacturer regarding specific installation requirements and available warranty coverage. The WeatherBond warranty excludes products not supplied or marketed through WeatherBond.
- F. The specifier may select an alternate insulation attachment that incorporates a solid mopping of the insulation with hot asphalt (ASTM D312, Type III or IV). Typical precautions include, but are not limited to, the following:
  - 1. The existing gravel surfaced built-up roof must be scraped to remove all loose gravel. Large blisters that may prevent continuous embedment of insulation must be repaired. The surface of the substrate must also be dry and clear of foreign material.
  - 2. On coal tar pitch, when deemed compatible by the specifier, minimum 1.4" polyisocyanurate is the required membrane underlayment when using WeatherBond RBR black membrane. If WeatherBond RBR white-on-black membrane is used, minimum 1" thick polyisocyanurate is required.
  - 3. For successful attachment, proper asphalt temperatures must be maintained and the specifier's requirements concerning the installation of a base sheet (where required) and quantity of hot asphalt must be followed.
  - 4. The maximum insulation board size shall not exceed 4' X 4'. Trim insulation boards around crickets and saddles to ensure continuous embedment.
  - 5. Care must be exercised to prevent contamination of the top surface of the insulation. Asphalt oozing through insulation joints must be wiped from the surface.

### 3.08 MEMBRANE PLACEMENT AND BONDING

- A. **Ensure** that water does not flow beneath any completed sections of the membrane system by completing all flashings, terminations and daily seals by the end of each workday.
- B. **Sweep** all loose debris from the substrate.
- C. **Position** EPDM membrane over the acceptable substrate without stretching.
- D. **Allow** membrane to relax approximately 1/2 hour prior to bonding.

- E. **Fold** membrane sheet back so half of the underside of the sheet is exposed. Sheet fold should be smooth without wrinkles or buckles.
- F. **Stir** WeatherBond RBR LC-60 Bonding Adhesive thoroughly scraping the sides and the bottom of the can (minimum 5 minutes stirring is recommended). Bonding surfaces must be dry and clean.

**CAUTION:** If aesthetics are of concern when white-on-black EPDM membrane is used, protect the white surface next to the edges of the folded membrane sheet so WeatherBond RBR LC-60 Bonding Adhesive will not discolor the white surface. Do not place WeatherBond RBR LC-60 Bonding Adhesive containers or their lids directly on the white surface of the membrane.

- G. **Apply** WeatherBond RBR LC-60 Bonding Adhesive evenly, without globs or puddles with a plastic core medium nap paint roller. A 9" roller will easily fit into the 5-gallon containers.

**Apply** WeatherBond RBR LC-60 Bonding Adhesive to both the membrane sheet and the substrate to achieve continuous coating of both surfaces at a coverage rate of approximately 120 square feet per gallon per one surface (membrane or substrate) or approximately 60 square feet per gallon per finished surface (includes coverage on both membrane and substrate).

**A mechanical roller dispenser or a mechanical sprayer** can be used to apply Substrate Adhesive when the continuous coating and coverage rate noted above are maintained. When used, **the substrate adhesive must be rolled after applying** with a plastic core medium nap paint roller to provide continuous coverage.

**CAUTION:** Due to solvent flash off, condensation may form on freshly applied WeatherBond RBR LC-60 Bonding Adhesive when the ambient temperature is near the dew point. If condensation develops, possible surface contamination may occur and the application of Substrate Adhesive must be discontinued. Allow the surface to dry and apply a thin freshener coat at the coverage rate, which is approximately half of the coverage rate stated above to the previously coated surface when conditions allow for continuing.

- H. **Allow** adhesive to dry until it is tacky but will not string or stick to a dry finger touch.
- I. **Roll** the coated membrane into the coated substrate while avoiding wrinkles.
- J. **Brush** down the bonded half of the membrane sheet, immediately after rolling the membrane sheet into the adhesive, **with a soft bristle push broom** to achieve maximum contact.
- K. **Fold** back the unbonded half of the membrane sheet and repeat the bonding procedure.
- L. **Install** adjoining membrane sheets in the same manner, overlapping edges appropriately to provide for the minimum splice width. It is recommended that all splices be shingled to avoid bucking of water.

### 3.09 MEMBRANE SEAMING

#### A. General

1. **Tape seams must be a minimum of 2-1/2" wide** using 3" wide WeatherBond RBR Peel & Stick Seam Tape extending 1/8" minimum to 1/2" maximum beyond the seam edge. Field seam at roof drains must be located outside the drain sump.
2. **Prior to Peel & Stick Seam Tape application, the splice area must be primed with Multipurpose Primer.**
3. **Cold Weather Restrictions - When Temperatures are Below 40° F (5° C)**
  - a. Peel & Stick Seam Tape must be stored in a warm, dry area. Hot boxes must be provided for temporary storage to maintain the temperature of Peel & Stick Seam Tape above 40° F (5° C).
  - b. After Multipurpose Primer has been applied and allowed to properly dry, heat the primed area of the bottom membrane sheet with a hot air gun as the tape is applied and pressed into place.
  - c. When temperatures will fall below 20° F (-7° C), use a steel roller to apply pressure to the tape prior to removing the release film.
  - d. Position the top sheet and remove the release film. Prior to rolling the splice with the 2" steel roller, apply heat to the

4. In warmer temperatures, it is recommended to keep Peel & Stick Seam Tape in a shaded area out of direct sunlight.

B. Position membrane sheet to allow for required splice overlap. Mark the bottom sheets with an indelible marker approximately 1/4" to 1/2" from the top sheet edge. The pre-marked line on the membrane edge can also be used as a guide for positioning Peel & Stick Seam Tape.

C. Remove dirt or excess dust from the mating surfaces of overlapping sheets by wiping with clean natural fiber rags. Accumulated dirt, footprints, etc. must be removed by scrubbing the membrane with Weathered Membrane Cleaner or Multipurpose Primer.

**Note:** Sheets wider than 16-1/2', which are folded prior to packaging, may contain factory induced wrinkles. When adhering the membrane, care must be exercised to prevent wrinkles/fishmouths in the splice area.

**Apply Multipurpose Primer to achieve a thin, even coat** on both membrane surfaces. Splice area must be uniform in color, streak-free and free of globs or puddles.

Multipurpose Primer shall be applied with a clean cloth. Chemically resistant gloves are required for hand protection when primer is used.

D. The coverage rate for Multipurpose Primer is approximately 250 square feet per gallon. This equates to approximately 300 linear feet per gallon for a completed 3" wide splice area (primer applied on 5" wide area on both membrane surfaces).

E. **Allow** Multipurpose Primer to dry until tacky but does not transfer to a dry finger touch.

**Note:** Due to solvent flash-off, condensation may form on freshly applied Multipurpose Primer when the ambient temperature is near the dew point. If condensation develops, the application of Multipurpose Primer and Peel & Stick Seam Tape must be discontinued since proper adhesion will not be achieved. Allow the primer surface to dry and apply a thin freshener coat of Multipurpose Primer to the previously coated surface and apply Peel & Stick Seam Tape when conditions allow.

F. **Unroll** approximately 3' of WeatherBond RBR Peel & Stick Seam Tape. Align release film with marked line and press tape down to bottom sheet using firm, even, hand pressure. Continue for the length of the splice. Tape roll ends must be overlapped 1". Allow top sheet to rest on release film on backside of tape.

**Note:** Tape placement is critical to obtain a minimum splice width of 2-1/2". A minimum of 1/8" to a maximum of 1/2" of tape must extend beyond the splice edge. A continuous piece of Peel & Stick Seam Tape must be used at all field or factory splice intersections.

G. **Pull** release film from Peel & Stick Seam Tape beneath the top sheet and allow the top sheet to fall freely onto exposed tape.

H. **Press** the top sheet onto the tape using firm, even, hand pressure across the splice towards the splice edge.

I. **Immediately roll** the splice using positive pressure when using a 2" wide steel roller. Roll across the splice edge, not parallel to it.

J. **Install** WeatherBond's "T" Joint Cover or a 6" wide section (with rounded corners) of WeatherBond RBR Peel & Stick Flashing over **all field splice intersections**. Refer to Detail WBRC-2.2.

### 3.10 LAP SEALANT APPLICATION

A. General

1. The use of WeatherBond RBR Lap Sealant with tape splices is **optional except at tape overlaps and at cut edges of reinforced membrane** (where scrim reinforcement is exposed). Lap Sealant must be utilized at these locations.

2. Lap Sealant is **required for all adhesive splices** and in conjunction with Uncured Flashing.

3. Lap Sealant is **optional** on Peel & Stick Flashing and Peel & Stick accessories (pipe seals, corners, pourable sealer pockets, etc.). WeatherBond Multipurpose Primer is required to prepare the membrane surface.

**Lap Sealant is required at the following locations.**

- a. Peel & Stick Seam Tape overlaps.
  - b. Splices between adjoining sections of Peel & Stick Flashing.
  - c. Intersections between Peel & Stick Flashing and joints in metal edgings.
4. When applying WeatherBond RBR Lap Sealant over cured-to-cured adhesive splices, wait at least 2 hours after completion of the splice to apply Lap Sealant.

**Note:** Lap Sealant may be applied immediately following completion of uncured-to-uncured adhesive splices or splices completed with Peel & Stick Seam Tape.

- B. **Clean the dry splice edge**, extending at least 1" onto the top and bottom membranes, using a clean cloth dampened with Weathered Membrane Cleaner or Multipurpose Primer.
- C. **Apply a 5/16" (minimum 1/4") diameter bead** of WeatherBond RBR Lap Sealant to completely cover the splice edge. When a 5/16" diameter bead of Lap Sealant is applied, approximately 22 linear feet of coverage per tube can be achieved.
- D. **Feather** the Lap Sealant with the specially preformed tool or nozzle (included in the Lap Sealant cartons) so the high point or crown of the Lap Sealant is located over edge of splice.

**Clean** the feathering tool occasionally for consistent crowning of Lap Sealant.

**APPLICATION OF LAP SEALANT SHOULD BE COMPLETED BY THE END OF THE DAY.** Delayed Lap Sealant application (not within the same day) will require scrubbing of accumulated dirt and dust along the splice edge, rinsing with clean water and cleaning with Weathered Membrane Cleaner or Primer.

**Note:** If weather is threatening, Lap Sealant may be applied to adhesive splices without waiting; however, splice area must be checked the following day for fishmouths or evidence of solvent entrapment (bubbled Lap Sealant).

### 3.11 ADDITIONAL MEMBRANE SECUREMENT

Securement must be provided at the perimeter of each roof level, roof section, expansion joint, curb flashing, skylight, interior wall, penthouse, etc., at any inside angle change where slope exceeds 2" in one horizontal foot, **and at other penetrations** in accordance with WeatherBond's details and securement options as listed below.

#### A. Reinforced Perimeter Strip

1. Loose lay the 6" wide WeatherBond RBR Peel & Stick Reinforced Perimeter Strip or standard 6" wide Reinforced Perimeter Strip along parapet walls and fasten with WeatherBond approved Seam Fastening Plates and the appropriate WeatherBond approved fastener to the roof deck or vertically into the parapet wall. Spacing of the Seam Fastening Plates shall be a maximum of 12" on center.
  - a. For horizontal attachment, the reinforced strip must be positioned a minimum of 1/8" to a maximum of 6" away from the angle change. Refer to Detail WBRC-12.5.
  - b. For vertical attachment, the reinforced strip must be attached to the vertical wall and must extend a minimum of 3" onto the horizontal substrate/insulation. Refer to Detail WBRC-12.6.
2. Adjoining sections of the reinforced strip need not be overlapped; however, gaps between adjoining sections must not exceed 1".
3. **When using Peel & Stick Reinforced Perimeter Strip, clean the underside of the membrane with WeatherBond Multipurpose Primer** and allow to properly dry prior to removing the release film from the Reinforced Perimeter Strip.

#### B. Seam Fastening Plates

Where the use of Reinforced Perimeter Strip is not feasible (at smaller curbs or skylights), WeatherBond approved 2" diameter Seam Fastening Plates may be used.

- a. Seam Fastening Plates may be installed horizontally into the structural deck or vertically into walls or curbs.
- b. Securement of the EPDM membrane with the approved WeatherBond Fasteners and Seam Fastening Plates must be a maximum of 12" on center starting 6" minimum to 9" maximum from inside and outside corners.
- c. If horizontal wood nailers are provided, secure the Seam Fastening Plates to the wood nailer with WeatherBond approved Fasteners. Roofing nails are not acceptable for securement.
- d. After securing the Seam Fastening Plates, flash in accordance with the appropriate detail.

### 3.12 FLASHING – General

- A. The height of the new wall flashing and termination must extend above the anticipated water level (due to heavy rain) or slush line (due to water under accumulated snow).
- B. All existing **loose** flashing must be removed prior to the application of new membrane. New membrane flashing must extend above all existing intact flashing but must not conceal weep holes or cover existing throughwall counterflashing.
- C. Install surface mounted reglets and compression bar terminations directly to the wall surface.
- D. All vertical field splices (adhesive or tape) at the base of a wall or curb must be overlaid with "T" Joint Covers, a 6" by 6" section (with rounded corners) of WeatherBond RBR Peel & Stick Uncured Flashing centered over the field splice.
- E. **WeatherBond RBR Peel & Stick Uncured EPDM Flashing or Uncured EPDM Flashing** must be limited to the overlayment of vertical seams (as required at angle changes), or to flash inside/outside corners, vent pipes, scuppers and other unusually shaped penetrations where the use of Pre-molded Pipe Seals, cured EPDM membrane or Peel & Stick Cover Strip is not practical.

**Note:** Even when working in elevated temperatures, in most cases a heat gun will be required to elevate the temperature of Uncured EPDM Flashing or Peel & Stick Uncured Flashing between 105° F and 110° F (40 and 43°C) to permit proper forming of the uncured flashing.

- F. When using **WeatherBond RBR Peel & Stick Cured Cover Strip** to overlay Seam Fastening Plates or metal edging flanges, etc., **WeatherBond Multipurpose Primer** must be used to clean the membrane and metal flanges.

**Note:** When using Peel & Stick products in colder temperatures, use a heat gun to warm the product. Apply heat to the EPDM flashing side of the product. Do not apply heat directly to the preapplied adhesive. The Peel & Stick Flashing must be applied immediately after Primer flashes off. Refer to Paragraph 3.09, Membrane Seaming, for application procedures in colder temperatures.

- G. In areas where metal counterflashing or surface mounted reglets are used as the vertical termination, they must be sealed with a rubber grade caulking to prevent moisture migration behind the new wall flashing.

### 3.13 ROOF WALKWAYS

- A. Walkways are required at all traffic concentration points (i.e., roof hatches, access doors, rooftop ladders, etc.), and if regular maintenance (once a month or more) is necessary to service rooftop equipment.
- B. **Pressure-Sensitive Walkway Pads** (with Factory-Applied Peel & Stick Seam Tape) are adhered to the membrane surface in conjunction with Multipurpose Primer. **Walkway pads by others**, when specified, must be adhered to the EPDM deck membrane with Peel & Stick Seam Tape/Primer.
- C. **Concrete Paver Blocks**

Install a **slip sheet of cured membrane or two layers of UV resistant polypropylene needle punched fabric** under all smooth pavers for protection of the deck membrane. The protective layer must extend a minimum of 2" on each side of the concrete paver.

Pavers are not recommended for walkways when slopes exceed 2" in 12".

### **3.14 DAILY SEAL**

- A. On phased roofing, when the completion of flashings and terminations is not completed by the end of each work day, provisions must be provided to temporarily close the membrane to prevent water infiltration.
- B. Temporarily seal any loose membrane edge down slope using "closed cell" urethane foam so the membrane edge will not buck water. Caution must be exercised to ensure the membrane is not temporarily sealed near drains in such a way as to promote water migration below the membrane.
- C. Follow the urethane foam manufacturer's installation requirements. Trim and remove membrane where urethane foam is applied.

### **3.15 CLEAN UP (For White Roofing Systems)**

If required by the specifier to ensure the aesthetics of the white surface of the EPDM membrane, the following procedures should be utilized:

- A. Handprints, footprints, general traffic grime, industrial pollutants and dirt may be cleaned from the membrane surface by scrubbing with warm water and a low sudsing soap; rinse the area completely with clean water. WeatherBond's Weathered Membrane Cleaner can also be utilized.
- B. WeatherBond RBR LC-60 Bonding Adhesive and Splice Adhesive residue may be cleaned using the following procedures:
  - 1. Saturate a clean cloth with clean WeatherBond's Weathered Membrane Cleaner.
  - 2. Scrub exposed WeatherBond RBR LC-60 Bonding Adhesive or Splice Adhesive with the saturated cloth until all residue is removed from the membrane. For easier removal, it may be necessary to change the cloth frequently.

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## **WEATHERBOND RBR ADHERED ROOFING SYSTEM Water Based Adhesive "Wet Lay-In" Application Method**

### **Attachment I**

**February 2008**

#### **A. General**

This Attachment to the WeatherBond RBR Adhered Roofing Systems describes the membrane attachment method using an acrylic based adhesive in a wet lay-in method.

The acrylic base adhesive is applied to the acceptable substrate only. While the adhesive is wet (adhesive is white in color and becomes translucent when dry), the membrane is embedded and broomed to ensure continuous adhesion and eliminate air bubbles.

Acceptable substrates include:

- a. **Minimum 15/32" thick Plywood**
- b. **Minimum 7/16" thick Oriented Strand Board**
- c. **Minimum 1/2" thick High Density Fiberboard**
- d. **Minimum 1/2" thick Dens-Deck or Dens-Deck Prime**

## B. Adhesive Application

Adhesive is applied at a coverage rate of approximately 100 – 120 sq ft / gallon finished surface, but may vary due to job conditions and porosity of the surfaced to which it is applied. Adhesive is packaged in 3.5-gallon pails.

1. **On horizontal surfaces**, apply as one-sided application **to the following acceptable porous surfaces and lay membrane into the wet adhesive (white in color) prior to adhesive cure (becomes translucent).**
2. **On vertical surfaces, the adhesive must be applied as a double-sided contact adhesive.**

## C. Cautions and Warnings

1. Review Material Safety Data Sheets for complete safety information prior to use.
2. WeatherBond Water Based Bonding Adhesive cannot be used after it has frozen.
3. Stir well before using. Do not thin.
4. The membrane must be free of wrinkles and should be allowed to relax for at least 30 minutes prior to application of the adhesive.
5. Apply at temperatures of at least 45° F and rising with no chance of freezing in the next 24 hours or nighttime temperatures below 40° F within 48 hours after application.
6. Traffic over membrane should be held to a minimum. If footprints are visible on the membrane sheet prior to adhesive cure, broom out. Footprints will be less visible after adhesive cures.

## C. Installation Criteria

1. Follow instructions in the WeatherBond Fully-Adhered Roofing System, Part III, Execution, Paragraph 3.04 for substrate preparation.
2. Clean any excessive dirt from the membrane with Membrane Cleaner or wipe talc off with a brush or clean cloth.
3. Position membrane to allow for proper termination and overlap of adjacent sheets.
4. Allow the membrane to relax approximately 30 minutes to 1 hour.
5. Fold the membrane in half exposing the substrate (deck) surface to be adhered.
6. Apply 10-12 mils of adhesive (starting at the fold) to the substrate with a roller, sprayer or squeegee.
7. Lay the membrane into the **still wet, white** adhesive. If the adhesive has turned transparent, a thin coat of adhesive must be applied to the membrane.

Note: Laying the membrane into the adhesive as soon as possible is recommended. This ensures wetting of the membrane surface.

8. Mating the membrane into the wet adhesive will allow for some repositioning of the membrane prior to the adhesive setting.
9. Use a push broom to sweep the surface once half the sheet is in place. Keeping a steady pressure with the broom against the membrane and mating surface will eliminate the formation of air bubbles.
10. Remove wrinkles by re-positioning the sheet using a push broom or remove by hand if possible.
11. Repeat the procedure for the second half of the sheet.

Refer to the WeatherBond Fully-Adhered Roofing System Specification and details for completing the installation.

# WEATHERBOND RBR ADHERED ROOFING SYSTEM

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