



G U I D E - S P E C

WeatherBond PRO TPO Fleece Membrane Adhered Roofing System - Aqua Base Bonding Adhesive July 2015

This **GUIDE-SPEC** is a brief outline of WeatherBond PRO TPO Fleece Membrane Adhered Roofing System with Aqua Base Adhesive and is intended for use as a submittal with a bid package. Specifiers and the WeatherBond Contractor must comply with the applicable Sections of WeatherBond's Installation Guide, prior to design or bid.

PART I GENERAL

1.01 DESCRIPTION

This WeatherBond PRO TPO Fleece Adhered Roofing System incorporates WeatherBond PRO reinforced TPO membrane laminated to non-woven polyester fleece-backing. The membrane is fully adhered to an acceptable insulation or substrate with WeatherBond's Aqua Base 120 Bonding Adhesive (water based).

Adjoining sheets of WeatherBond PRO TPO membrane are spliced together with a minimum 1-1/2" wide hot air weld.

1.02 QUALITY ASSURANCE

- A. This roofing system should be installed by a WeatherBond Contractor in compliance with drawings and specifications as approved by WeatherBond.

1.03 SUBMITTALS

- A. To ensure compliance with WeatherBond's minimum requirements, the following projects should be forwarded to WeatherBond for review prior to installation, preferably prior to bid.
 - 1. Air pressurized buildings, canopies, and buildings with large openings, cold storage buildings or freezer facilities, adhered roofing system projects over 100' in height or projects where the WeatherBond PRO TPO Fleece membrane is expected to come in direct contact with petroleum-based products, waste products (i.e., grease, oil, animal fats, etc) and other chemicals.

1.04 GENERAL DESIGN CONSIDERATIONS

- A. It is the responsibility of the building owner or his/her designated representative to verify structural load limitation. In addition, a core cut may be taken to verify weight of existing components when the roofing system is to be specified on an existing facility.
- B. On new construction projects, especially in cold climate regions, moisture generated due to the construction process could adversely impact various components within the roofing assembly if not addressed. Refer to Spec Supplement G-01-11 "Construction Generated Moisture" included in the WeatherBond Technical Manual.
- C. 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.

CAUTION: If left unaddressed, collected moisture could weaken insulation boards and facers resulting in a blow-off or increase the probability of mold growth.

- D. Vapor Retarders
 - 1. WeatherBond does not require a vapor retarder for the protection of the membrane; however, it should be considered by the specifier for the protection of the roofing assembly (i.e. primarily insulation, underlayment and adhesives). The following criteria should be considered by the specifier:

- a. Use of a vapor retarder to protect insulation and reduce moisture accumulation within an insulated roofing assembly, should be investigated by the specifier.
- 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.

1.05 WARRANTY

- A. A 15 or 20-Year Membrane Material Warranty for commercial buildings is available at no charge.
- B. A 15-year or Limited Lifetime Material Warranty is available for residential applications at no charge
- C. A 10 or 15-year Extended warranty is available for residential or commercial applications for a charge

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the job site in the original, unopened containers labeled with the manufacturer's name, brand name and installation instructions.
- B. Job site storage temperatures in excess of 90°F may affect shelf life of curable materials (i.e., Aqua Base 120 Bonding Adhesive, splicing cement, sealants, cleaners, primers, Pourable Sealer, peel & stick flashing and uncured flashing).
- C. When liquid adhesives and sealants are exposed to lower temperatures, restore to a minimum of 60°F before use. Do not store containers with opened lids due to loss of solvent which will occur from flash off. Do not allow Aqua Base 120 Bonding Adhesive to freeze. Do not store below 40°F.
- D. WeatherBond PRO TPO Fleece Membrane should be stored in its original plastic wrap and be covered to protect from moisture. Any moisture absorbed by the fleece-backing must be removed by using a wet-vac system, prior to membrane adhesion.

1.07 JOB CONDITIONS

- A. Refer to WeatherBond Installation Guide for applicable project specific Job Conditions.

PART II 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 as compatible by WeatherBond**, is not the responsibility of WeatherBond and is expressly disclaimed by the WeatherBond Warranty.

2.02 MEMBRANE

WeatherBond PRO TPO Fleece 100 or 115 Membrane incorporates 45-mil or 60-mil thick WeatherBond PRO reinforced TPO membrane laminated to a 55-mil thick non-woven polyester fleece-backing resulting in a total finished sheet thickness of 100 or 115 mils. For available membrane widths and lengths refer to applicable WeatherBond PRO TPO Fleece Product Data Sheets.

2.03 RELATED MATERIALS

- A. Aqua Base 120 Bonding Adhesive, Cleaners, Sealants, Primers, Flashing, Peel and Stick Flashing, Termination Bars, WeatherBond Insulation, Insulation Fasteners and Water Cut-Off Mastic are required for use with this roofing system. Other WeatherBond products, such as insulation and edgings are also required when a System Warranty is specified.

Other Products: Walkway Pads, Pre-Molded Pipe Flashings, Corners and Pourable/Molded Sealant Pockets.

PART III EXECUTION

3.01 GENERAL

- A. When feasible, begin the application at the highest point of the highest roof level and work to the lowest point to prevent moisture infiltration and minimize construction traffic on completed sections. This will include completion of all flashings and terminations.

3.02 ROOF DECK CRITERIA

- A. A proper substrate shall be provided by the building owner. The structure shall be sufficient to withstand normal construction loads and live loads.
- B. Defects in the roof deck must be reported and documented to the specifier, general contractor and building owner for assessment. The WeatherBond Contractor shall not proceed unless the defects are corrected.
- C. When mechanically attaching the insulation with WeatherBond Fasteners and Insulation Plates, refer to WeatherBond PRO TPO Specification for acceptable decks and the applicable WeatherBond Fasteners.

3.03 SUBSTRATE REQUIREMENTS

- A. The membrane may be adhered with Aqua Base 120 Bonding Adhesive directly over porous structural concrete or wood roof decks (new or tear-off). Direct application over certain types of cellular or perlite lightweight insulating concrete substrate may also be specified (contact WeatherBond for acceptable lightweight insulating concretes).

CAUTION: Direct application of the membrane is not permitted over existing roofing systems or decks with residual adhesive or asphalt.

- B. Acceptable WeatherBond insulations or cover boards include XP Polyiso, SecurShield, SecurShield HD, and Securock.
- C. The substrate must be dry, relatively smooth, free of protrusions, debris, sharp edges or foreign materials and must be free of accumulated water, ice and snow. Cracks or voids in the substrate greater than 1/4" (6 mm) must be filled with a suitable material.
- D. On retrofit-recover projects, cut and remove wet insulation as identified by the specifier and fill all voids with new insulation, so that it is relatively flush, prior to installing an approved insulation.

3.04 INSTALLATION

Refer to the applicable Material Safety Data Sheets and Product Data Sheets for cautions and warnings.

A. Insulation Attachment

1. WeatherBond's DASH/FAST Bonding Adhesive may be specified for insulation securement in full spray or beads with spacing as outlined in the WeatherBond Technical Manual.
2. WeatherBond Fasteners may be used, when specified, to secure WeatherBond Insulation at the specified density outlined in the WeatherBond Technical Manual

B. Membrane Adhesion

1. WeatherBond PRO TPO Fleece Membrane shall be fully adhered to an acceptable substrate with Aqua Base 120 Bonding Adhesive supplied by WeatherBond.

Aqua Base 120 Bonding Adhesive is applied to the substrate only and the membrane is rolled into the wet adhesive. Roll the membrane with a weighted steel roller (100 - 150 pounds) or push broom to set the membrane into the adhesive.

2. **Membrane Splicing of WeatherBond PRO TPO Fleece Systems**

Refer to appropriate splicing procedures published in the WeatherBond PRO TPO Installation Guide

D. Flashing

1. Flashing of standard penetrations and edge conditions shall conform to the details in WeatherBond's TPO installation guide as applicable.
2. **WeatherBond PRO TPO Fleece Wall Flashing** (2-sided method): Coat the fleece backing and allow the adhesive to completely dry. Test for dryness by pressing the back of a finger into the fleece to check that the adhesive is dry throughout

the fleece layer. Once the adhesive on the fleece is dry, apply a standard coat of adhesive to the wall and a second coat to the fleece backing and allow drying. Adhesive will turn translucent when dry. Mate the membrane with the adhesive coated wall, while avoiding wrinkles. Immediately broom the bonded portion of the sheet with a stiff bristle push broom or roll the membrane using a 3" wide "J" roller (preferred) to achieve maximum contact. Please note the fleece will develop a dry top surface while still holding moisture in the fleece and does require complete drying prior to the mating of the membrane to the wall substrate. Installing the membrane while the adhesive is still wet, will trap moisture and cause blisters or loose membrane.

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