GUIDE SPECIFICATION FOR AIR-SHIELD™ THRU-WALL FLASHING: SELF-ADHESIVE FLEXIBLE FLASHING MEMBRANE

SECTION 07 65 26

SELF-ADHERING SHEET FLASHING

Specifier Notes: This guide specification is written according to the Construction Specifications Institute (CSI) format. The section must be carefully reviewed and edited by the architect or engineer to meet the requirements of the project. Coordinate this section with other specification sections and drawings.

Specifier Notes: AIR-SHIELD THRU-WALL FLASHING is a self-adhering, flexible membrane flashing. It is a roll-type product that is nominally 40 mils thick. This material is an air, vapor, and liquid moisture barrier.

AIR-SHIELD THRU-WALL FLASHING is a concealed flashing for masonry concrete, wood/steel frames, and roofing applications – door and window lintels, sills, spandrel beams, caps, and parapets. AIR-SHIELD THRU-WALL FLASHING is designed for use as a thru-wall flashing and dampproofing course.

This unique, self-adhesive membrane, protected by a special release paper, is strong and durable. It remains flexible when surface mounted and will adhere to most primed surfaces at minimum temperatures of 40° F (4° C). The membrane provides excellent protection as a tough barrier that won't shrink, sag, dry out, crack, or rot. It offers excellent resistance to punctures during installation. The self-healing characteristics of AIR-SHIELD THRU-WALL FLASHING facilitate recovery if minimal damage is sustained under normal use applications, i.e. when penetrated with self-tapping screws or nails.

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Application of self-adhering sheet membrane flashing.

1.02 RELATED SECTIONS

Specifier Notes: Edit the list of related sections as required for the project. List other sections dealing with work directly related to this section.

A. Section 04 20 00 - Unit Masonry.

B. Section 07 21 00 - Thermal Insulation.

C. Section 07 50 00 - Membrane Roofing.

D. Section 07 60 00 - Flashing and Sheet Metal.

E. Section 07 70 00 - Roof and Wall Specialties and Accessories.

F. Section 07 80 00 - Fire and Smoke Protection.

G. Section 07 92 00 - Joint Sealants.

H. Section 08 10 00 - Doors and Frames.

I. Section 08 50 00 - Windows.

H. Section 09 20 00 - Plaster and Gypsum Board.

1.03 REFERENCES

A. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.

B. ASTM D570 - Standard Test Method for Water Absorption of Plastics.

C. ASTM D882 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting.

D. ASTM D903 - Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.

E. ASTM D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.

F. ASTM E96-00e1 (Method B) - Standard Test Methods for Water Vapor Transmission of Materials.

G. ASTM E154-99 - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.

H. ASTM E283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.

I. ASTM E783 - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors.

J. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference.

K. ASTM E2178-01 - Standard Test Method for Air Permeance of Building Materials.

L. CGSB 37-GP-56M - Membrane, Modified, Bituminous, Prefabricated, and Reinforced for Roofing.

1.04 SUBMITTALS

A. Comply with Section 01 33 00 - Submittal Procedures.

B. Submit manufacturer's product data and application instructions.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Use an experienced installer and adequate number of skilled personnel who are thoroughly trained and experienced in the application of self-adhesive membranes.

B. Obtain self-adhesive flashing membrane materials from a single manufacturer regularly engaged in manufacturing the product.

C. Provide products which comply with all state and local regulations controlling use of volatile organic compounds (VOCs).

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Store materials in a clean, dry area in accordance with manufacturer's instructions.

C. Store adhesives and primers at temperatures of 40° F (5° C) and above to facilitate handling.

D. Store membrane cartons on pallets.

E. Do not store at temperatures above 90° F (32° C) for extended periods.

F. Keep away from sparks and flames.

G. Completely cover when stored outside. Protect from rain.

H. Protect materials during handling and application to prevent damage or contamination.

1.07 ENVIRONMENTAL REQUIREMENTS

A. Product not intended for uses subject to abuse or permanent exposure to the elements.

B. Protect rolls from direct sunlight until ready for use

C. Do not apply membrane when air or surface temperatures are below 40° F (4° C).

D. Do not apply to frozen surfaces.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. W. R. MEADOWS®, INC., PO Box 338, Hampshire, Illinois 60140-0338. (800) 342-5976. (847) 683-4500. Fax (847) 683-4544. Website: www.wrmeadows.com.

2.02 MATERIALS

A. Rolled, Self-Adhering Sheet Flashing Membrane: 40 mils (1.0 mm) thick membrane.
1. Performance Based Specification: Self-adhering sheet flashing membrane shall have the following characteristics:
a. Color:
1) Carrier Film: White.
2) Polymeric Membrane: Black.
b. Thickness: 40 mils (1mm).
c. Tensile Strength Film:
1) ASTM D412, modified (MD): 4,000 psi (27.6 MPa).
2) ASTM D882 (MD): 23.5 lb./in. (4.1 N/mm).
d. Elongation Film:
1) ASTM D412, modified (MD, %): 400 (Typical).
2) ASTM D882 (MD, %): 400 Min.
e. Puncture Resistance, ASTM E154: 40 lbf (178 N) Min.
f. Water Vapor Permeance (free film), ASTM E 96, Procedure B: 0.035 Perms.
g. Air Permeability, ASTM E283 / E2178: 0.004 cfm/ft.^{2} @ 75 Pa (1.57 lb / ft.^{2}).
h. Lap Peel Strength @ 39° F (3.9° C), ASTM D903, 180 Bend: 10 lbf/in. (1.75 N/mm).
i. Low Temperature Flexibility @ -22° F (-30° C), CGSB 37-GP-56M: Pass

2. Proprietary Based Specification:
a. AIR SHIELD THRU-WALL FLASHING by W. R. MEADOWS.

2.03 ACCESSORIES

A. Surface Conditioner:
1. Temperatures above 40° F (4° C): Water-Based Adhesive

a. MEL-PRIME™ W/B Water-Based Adhesive by W. R. MEADOWS.

2. Temperatures below 30° F (-1° C): Solvent-Based Adhesive.
   a. MEL-PRIME VOC-Compliant Solvent-Based Adhesive or Standard Solvent-Based Adhesive by W. R. MEADOWS.

B. Pointing Mastic: mastic for sealing penetrations and terminations of membrane.
   1. POINTING MASTIC by W. R. MEADOWS.

C. Concrete Repair Materials: MEADOW-PATCH™ 5 and 20 Concrete Repair Mortars.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine surfaces to receive membrane. Notify architect if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.02 SURFACE PREPARATION

A. Protect adjacent surfaces not designated to receive self-adhering flashing membrane.

B. Clean and prepare surfaces to receive membrane in accordance with manufacturer's instructions.

C. Do not apply membrane to surfaces unacceptable to manufacturer.

D. All surfaces must be clean, smooth, and dry and must be clean of oil, dust, and excess mortar.

E. Strike masonry joints flush.

F. Patch all holes and voids and smooth out any surface misalignments.

G. Concrete surfaces must be cured for a minimum of 14 days.

H. If curing compounds are used, they must be clear, resin-based, and without oil, wax, or pigments.

3.03 APPLICATION OF SELF-ADHERING SHEET FLASHING

A. Precut pieces of flashing to size to aid in handling.

B. Prime surfaces to be covered in one working day with applicable adhesive.

C. Remove release paper prior to application and apply membrane with a minimum overlap of 3” (75 mm) onto primed surface.

D. Recess through wall flashing 1/2” (13 mm) from the face of the masonry.

E. Roll membrane firmly into place with hand roller.

F. Ensure membrane is fully adhered and remove all wrinkles and fish mouths.

G. Overlap subsequent courses of membrane a minimum of 2” (50 mm) and ensure joints are fully adhered.

H. Seal top edge of transition membrane with pointing mastic.

I. Avoid use of products which contain tars, solvents, pitches, polysulfide polymers, or PVC materials that may come into contact with waterproofing membrane system.

3.04 PROTECTION

A. Cover self-adhering sheet flashing as soon as possible, since it is not designed for permanent exposure.

END OF SECTION