

PERMAROOF® MB SELF ADHERED

Notes To Specifier

SPECIFIED SYSTEM: This section is a “narrow scope section” specifying a PERMAROOF® MB Modified roofing system manufactured by Republic Powdered Metals. Utilize this section specifically for hot and cold applied system or base ply over rigid roof insulation. This specific system is self adhered. Additional “narrow scope sections” are available from Republic Powdered Metals, which suit other specific material systems and construction conditions. Selection And Editing Requirements:

EDITING: Since this “narrow scope section” has been specifically written for one (1) type of installation, the section requires only minor editing. Additional notes to the specifier that follow identify such specific editing requirements. In the event additional material components or accessories are required, consult the manufacturer prior to adding specific information to the section.

TITLE: Use the specific section and number title as stated, which is in accordance with the CSI Masterformat.

1.01 - RELATED SECTIONS: Add or delete references to specific sections as necessary to suit project manual contents.

1.03 - CONFORMANCE STANDARDS: Select appropriate wind resistance requirements, either “I-60” or “I-90” and UL Class A, B or C. Republic recommends perimeter metal gauge and attachment that conforms to FM 1-49.

1.10 - WARRANTY: Select appropriate warranty option.

2.01 - ROOF INSULATION: Specific substrate and project conditions determine the type and thickness of insulation required. Consult with manufacturer for approved insulations.

2.02 - VAPOR RETARDER: Consult projects architect or consultant if applicable.

3.03 - ROOF INSULATION: Specify installation method either utilizing Republic Insulation Adhesive, hot asphalt with recommended primer, or a mechanically fastened system as recommended by the manufacturer for each substrate condition.

3.05 - INSTALLATION OF ROOFING MEMBRANE: Self Adhered.

Drawing Coordination:

MANUFACTURER’S RECOMMENDED STANDARD DETAILS: Republic Powdered Metals, Inc. will provide standard recommended details for use by the design professional, either in hard copy or CAD electronic media. Utilize and edit such details as required to suit specific project criteria.

END OF NOTES TO SPECIFIER

SECTION 07531

PERMAROOF® MB Self Adhered Self Adhered Modified Bitumen Roofing

PART 1 GENERAL

1.01 RELATED SECTIONS

- A. Section 07620 – Sheet Metal Flashing and Trim.
- B. Section 07710 – Prefabricated Roofing Specialties.
- C. Section 07720 – Roof Accessories.
- D. Section 07920 – Sealants and Caulking.

1.02 REFERENCES

- A. Factory Mutual (FM Global) Approval Guide
 - 1. Factory Mutual Standard 4470 Approval Standard for Class I Roof Covers
- B. Underwriters Laboratories (UL) Roofing Systems & materials Guide
- C. American Society for testing and Materials (ASTM) Annual Book of ASTM Standards
 - 1. ASTM C-208 Standard Specifications for Cellulosic Fiber Insulation Board
 - 2. ASTM C-728 Standard Specification for Perlite Thermal Insulation Board
 - 3. ASTM C-1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
 - 4. ASTM D-6164, Type I, Grade G Standard Specification for Modified Bitadiene Styrene (SBS)
 - 5. ASTM D-41 Standard Specification for Asphalt Primer used in Roofing, Dampproofing & Waterproofing
 - 6. ASTM D-4601 Standard Specification for Asphalt-Coated Glass-Fiber base Sheet used in roofing
 - 7. ASTM D-4897 Standard Specification for Asphalt-Coated Glass-Fiber Venting base Sheet used in roofing
 - 8. ASTM D-4586 Standard Specification for Asphalt Roof Cement, Asbestos Free
- D. Sheet Metal and Air Conditioning Contractor s National Association (SMACNA)
- E. Asphalt Roofing Manufacturers Association (ARMA)
- F. American Society of Civil Engineers (ASCE)
 - 1. ASCE-7 Minimum Design Loads to Buildings and other Structures

1.03 REGULATORY REQUIREMENTS

- A. Work shall be performed in a safe professional manner, conforming to all federal, state, and local code requirements.
- B. Factory Mutual (FM)
 - 1. Fire Rating: "Class I"
 - 2. Wind Resistance: ["I-90"] OR ["I-60"]
- C. Underwriters Laboratory (UL)
 - 1. Fire Rating: "Class [A] [B] or [C]"
- D. Provide and install a roofing membrane and flashing system that will meet the local code/design requirements of the most current revision of ASCE 7.

1.04 QUALITY ASSURANCE

- A. Certify approval of applicator in the form of an affidavit written and submitted by the manufacturer.
- B. If requested by contractor, provide on-site instruction and inspection by the manufacturer's Technical Service Department.
- C. Upon completion, provide an inspection by the manufacturer to assure installation is in accordance with manufacturer's requirements.

1.05 SUBMITTALS

- A. Submit eleven (11) inch by eight and one-half (8-1/2) inch samples of roofing membrane and accessories, with manufacturer's identification labels attached.
- B. Submit manufacturer's spec data.
- C. Submit shop drawings showing details, fabrication and fastening devices for each condition encountered.
- D. Submit test data illustrating compliance with each conformance standard and criteria listed.

1.06 PRE-INSTALLATION CONFERENCE

- A. Prior to ordering materials and commencing roofing, conduct a pre-installation conference to discuss the specified roofing system and its proper application. Notify the manufacturer's representative when the prerooting conference is scheduled.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver roofing materials, insulation, and accessories in manufacturer's original protective containers with labels in tact and legible. Comply with the

manufacturer's published instructions for storage and handling.

- B. Remove manufacturer supplied plastic shrink wrap from pallets and store membranes with secured breathable type weather proof covering on clean, raised platforms.
- C. All self-adhered membranes shall be stored at a minimum of 55° 24 hours prior to application and shall be applied only when the temperature is 55° and rising.
- D. Store flammable products away from sparks or open flames.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Proceed with Granule Surfaced Modified Bitumen roofing work only when weather conditions comply with the manufacturer's recommendations. Do not exceed temperature limitations recommended by roofing manufacturer.
- B. Prior to application of Granular Surfaced Modified Bitumen roofing, provide clean surfaces, free from moisture.

1.09 PROTECTION

- A. Protect roof deck and insulation from moisture by providing water cut-offs at the end of each day's work or when the weather is threatening. Failure to protect the deck and roofing from moisture will result in the removal of damaged materials or materials containing excessive moisture. Remove water cut-offs prior to start of new work.
- B. Protect building and adjacent surfaces from bitumen spillage.
- C. Do not permit traffic or material storage on completed roof surfaces. When unavoidable, provide walktreads or insulation boards.

1.10 WARRANTY

- A. Provide manufacturer's standard ten (10) year material warranty.
- B. Provide manufacturer's standard ten (10) year warranty covering materials and workmanship.
- C. Provide manufacturer's standard fifteen (15) year warranty covering materials and workmanship.

PART 2 PRODUCTS

2.01 ROOF INSULATION

- A. Isocyanurate, wood fiber, fiberglass, Dens Deck
- B. Approved Base Sheets

2.02 ROOFING MEMBRANE AND ACCESSORIES

- A. Approved manufacturer: Republic Powdered Metals, Inc.
- B. Roof Membrane: PERMAROOF MB Self Adhered Modified Bitumen (SBS)

- 1. Color: White Granules

2. Composition: SBS Modified Bitumen with a glass reinforcing mat
3. Thickness: 0.080 in. (2.03 mm) (80 mils)
4. ASTM D 6164, Type I, Grade G.

C. Approved Base Sheets

1. PERMAROOF MB Self Adhered Base Sheet
2. ASTM D 6163, Type I, Grade S.

D. Flashing Membrane

1. Material: PERMAROOF MB Self Adhered Modified Bitumen (SBS)
2. Composition: SBS Modified Bitumen with a glass reinforcing mat

E. PERMAROOF Patching Cement

1. Adhesive used for 2 ply base, curb wall flashings as well as corners, pipe, drain and edge flashings.

F. PERMAROOF MB MESH

1. Available in 4" and 6' widths for three coursing with PERMAROOF Patching Cement.

G. Drain and Pipe Flashing Lead

1. Minimum 27" x 27" lead flashing for roof drain require 4 lb. lead.
2. Pipe or vent jacket lead is required to be a minimum of 3 lb.

H. Cant Strip Installation

1. Install non-combustible cant strips at all vertical flashings i.e. walls and curbs. Perlite or wood fiber cant strips factory cut to a 45 degree angle are acceptable.

I. Backer Rod

1. Extruded closed cell polyurethane foam rod for use with elastomeric sheet roofing.

J. Granules

1. White #11 Granules - Used at areas of asphalt or cold adhesive bleed out.

K. Pitch Pans

1. Chem curb by Chemlink or equal.

L. Approved Primers

1. REPUBLIC WB Primer
2. PERMAPRIMER

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify proper placement of all roof openings, pipes, curbs, sleeves, ducts, vents, drains and other penetrations.
- B. Verify proper securement of penetrating or roof mounted equipment, with fastening devices flush with surfaces.

3.02 SUBSTRATE PREPARATION

- A. Comply with manufacturer's published instructions for preparation of substrates to receive Modified Bitumen roofing. Clean substrate of dust, debris, and other substances detrimental to roofing work.

3.03 ROOF INSULATION

- A. Neatly fit insulation to all penetrations, projections, and nailers. Install tapered or feathered insulation around roof drains in such a way as to provide proper slope (maximum 3:12 pitch) for drainage.
- B. Install no more insulation than can be covered with roofing membrane and completed before the end of the day's work, or before the onset of inclement weather.
- C. Adhere insulation with Republic's Insulation Adhesive, hot asphalt, or mechanically fasten per manufacturer's recommendations.

3.04 INSTALLATION OF SELF ADHERED BASE SHEET

- A. Plan placement of PERMAROOF MB Self Adhered Base Sheet to ensure that water flows over or along, but not against the exposed edges. Starting at the low point of the roof, lay out sheet to assure all seams are straight and properly aligned with the roof edge. Align the factory applied selvedge release film on the roof field side of the sheet, not along the roof edge.
- B. Fold back PERMAROOF MB Self Adhered Base Sheet lengthwise, then remove the first half of the perforated release film. Carefully fold the sheet back onto the substrate and adhere the first half. Press the membrane into place with firm, even pressure to assure positive adhesion. Avoid voids, wrinkles, and buckling. After first half is adhered, fold back other half of sheet. Remove release film backing and adhere remaining portion of sheet to the substrate in the same manner.
- C. Position and apply second roll of PERMAROOF MB Self Adhered parallel to the first roll, fully overlapping the release film on the first roll a minimum 3.5" (89mm). With the first and second roll properly placed, aligned, overlapped, and adhered, remove the release film from the previous sheet's selvedge. Press the selvedge to fully adhere, using firm, even pressure to assure positive adhesion. Continue application of all subsequent rolls in the same manner.
- D. Overlap PERMAROOF MB Self Adhered Base Sheet end laps 6" minimum. Prior to completing end lap, do not remove 6" (minimum) of release film from the top sheet. Along end laps, cut the underlying sheet in the T-Lap area to a 45 degree angle prior to removing selvedge and end lap release film. Caulk along 45 degree lap cut with

1/8" bead of sealant to ensure complete watertight protection of substrate.

- E. Roll the finished PERMAROOF MB Self Adhered Base Sheet surface to assure positive adhesion. Use an 80 lb linoleum roller, water filled lawn roller, or similar weighted roller to provide sufficient pressure to finished membrane surface.
- F. Install PERMAROOF MB Adhered Base Sheet membrane system directly to PERMAROOF MB Self Adhered Base Sheet. Offset membrane laps from base ply laps. Stagger end laps at least 36" (914 mm).

3.05 INSTALLATION OF SELF ADHERED MODIFIED BITUMEN ROOFING SYSTEM

- A. Plan placement of PERMAROOF MB Self Adhered to ensure that water flows over or along, but not against the exposed edges. Starting at the low point of the roof, lay out sheet to assure all seams are straight and properly aligned with the roof edge. Align the factory applied selvage release film on the roof field side of the sheet, not along the roof edge.
- B. Fold back PERMAROOF MB Self Adhered lengthwise, then remove the first half of the perforated release film. Carefully fold the sheet back onto the substrate and adhere the first half. Press the membrane into place with firm, even pressure to assure positive adhesion. Avoid voids, wrinkles, and buckling. After first half is adhered, fold back other half of sheet. Remove release film backing and adhere remaining portion of sheet to the substrate in the same manner.
- C. Position and apply second roll of PERMAROOF MB Self Adhered parallel to the first roll, fully overlapping the release film on the first roll a minimum 3.5" (89mm). With the first and second roll properly placed, aligned, overlapped, and adhered, remove the release film from the previous sheet's selvage. Press the selvage to fully adhere, using firm, even pressure to assure positive adhesion. Continue application of all subsequent rolls in the same manner.
- D. Overlap PERMAROOF MB Self Adhered end laps 6" minimum of release film from the top sheet until ready to seal end lap. Stagger end laps at least 36" (914 mm). No special end lap treatment is necessary if using the factory end lap which is at the core of each roll. When constructing end laps onto granule surfaced sections, embed granules into the membrane using a heated trowel. Alternately, seal end laps.
- E. Roll the finished PERMAROOF MB Self Adhered surface to assure positive adhesion. Use an 80 lb linoleum roller, water filled lawn roller, or similar weighted roller to provide sufficient pressure to finished membrane surface.

END OF SECTION

SPECIFICATION DISCLAIMER:

This "narrow scope" specification provides general guidelines and details only regarding the installation of solely PERMAROOF MB materials. Republic has not been employed or retained to prepare specifications tailored to this particular project. The specifier using this "narrow scope" specification is responsible for editing or modifying the specifications to suit specific project conditions. Neither the issuance of this specification nor any information contained herein implies the acceptance by Republic of any particular roof design, installation procedure or roof component.



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