

SECTION 07 41 13

SELF-ADHERED UNDERLAYMENT MEMBRANE

PART 1: GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions, the Supplementary Conditions, the Instructions to Bidders and Division One General Requirements shall be read in conjunction with and govern this section.
- B. The Specification shall be read as a whole by all parties concerned. Each Section may contain more or less than the complete work of any trade. The Contractor is solely responsible to make clear to the Subcontractors the extent of their work.

1.02 DESCRIPTION

- A. Supply labor, materials, plant, tools and equipment to complete the Work as shown on the Drawings and as specified herein including, but not limited to the following:
 - 1. Underlay Board,
 - 2. Primer & Self-Adhered High Temp Underlayment,
 - 3. Standing Seam Pre-finished Metal Roof,
 - 4. Metal Flashings and Accessories.

1.03 RELATED WORK

- A. Joint Sealers: Section 07 92 10

1.04 REFERENCES

- A. ASTM C1177-96: Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
- B. ASTM D3273: Standard Test Method for Resistance to Growth of Mould on the Surface of Interior Coatings in an Environment Chamber
- C. CSA A123.4-[M1979]: Bitumen for use in Construction of Built-Up Roof Coverings and Dampproofing and Waterproofing systems.
- D. CAN/CGSB-37.29-[M89]: Rubber-Asphalt Sealing Compound.

1.05 SHOP DRAWINGS

- A. Submit shop drawings.

1.06 STORAGE AND HANDLING

- A. Store membranes and accessories in a dry location, in original packaging.
- B. If product is stored outside, it must be elevated on a platform and be protected with a waterproof cover, which will shed water away from the material.
- C. Store all products in an upright position. Do not double stack unless product is on pallets and packaged as received from factory. Never stack more than two pallets high without racking.
- D. In cold weather store membranes in heated area and take onto roof immediately prior to use.
- E. Store adhesives and primers between 15 degrees C (60 degrees F) and 26 degrees C (80 degrees F), or restore to temperature range before use.
- F. Store combustible materials away from heat and open flame.
- G. Do not store membranes at ambient temperatures above 49 degrees C (120 degrees F).

1.07 ENVIRONMENTAL REQUIREMENTS

- A. installations in temperatures below 10 degrees C (50 degrees F) can result in quality concerns.

- B. Verify adhesion regularly during cold temperature applications.
- C. Store rolls in heated location until needed on the roof.
- D. It is recommended that when temperatures remain below +10 degrees C (50 degrees F) application should be suspended.
- E. Minimum working temperatures shall take into consideration a factor for wind chill. Application temperature shall be considered to be the temperature minus half of the wind speed as recommended by the Canadian Roofing Contractors Association (CRCA).

1.08 PROTECTION

- A. Protect membrane from site damage during application. Cover traffic areas with appropriate protection to serve as walkways so as to prevent any damage to the membrane.

1.09 SUBMITTALS

- A. Submit in writing, a document stating that the applicator of the primary membranes specified in this Section are recognized by the manufacturer as suitable for the execution of the Work.
- B. Prior to commencing the Work submit copies of manufacturers' current ISO certification. Membrane, primers, sealants, adhesives and associated auxiliary materials shall be included.
- C. Prior to commencing the Work submit references clearly indicating that the membrane manufacturer has successfully completed projects on an annual basis of similar scope and nature for a minimum of fifteen years. Submit references for a minimum of ten projects.
- D. Prior to commencing the Work submit manufacturers' complete set of standard details for the air/vapor barrier and roofing membrane systems showing a continuous plane of air tightness throughout the building envelope.

1.10 QUALITY ASSURANCE

- A. Perform Work in accordance with the printed requirements of the membrane manufacturer and this specification. Advise designer of any discrepancies prior to commencement of the Work.
- B. Maintain one copy of manufacturers' literature on site throughout the execution of the Work.
- C. At the beginning of the Work and at all times during the execution of the Work, allow access to site by the roofing membrane manufacturers' representative.
- D. Weather application issues and surface conditions can affect adhesion and are beyond Henry's control. Use of hot air welder may be required to achieve proper adhesion. It is the responsibility of the roofing contractor to ensure adhesion of this product during application. Henry, therefore, limit our liability to replacement of defective material only.
- E. At the request of the [architect] [engineer] [consultant], submit documentation certifying that the roofing membranes comply with CGSB 37-GP-56M.
- F. Materials used in this Section, including air/vapor barrier membranes, primers, mastics, adhesives and sealants shall be fully compatible and shall be sourced from one manufacturer.
- G. At the request of the [architect] [engineer] [consultant], submit copies of the membrane manufacturers' current certification to ISO 9000.

1.11 SUBSTITUTIONS

- A. Submit requests for substitutions prior to bidding
- B. Alternate submission format to include:
 - 1. Submit evidence that alternate materials meet or exceed performance characteristics of Product requirements and documentation from an approved independent testing laboratory certifying that the performance of the roofing membrane system including air vapor barrier and transition sheets, exceed the requirements of the National Building Code.
 - 2. Submit copies of manufacturers' current ISO certification.

3. Submit references clearly indicating that the membrane manufacturer has successfully completed projects on an annual basis of similar scope and nature for a minimum of five years.
4. Submit manufacturers' complete set of standard details for the roofing membrane systems showing a continuous plane of air tightness throughout the building envelope.
5. Submit requests for alternates to this specification a minimum of fifteen (15) working days prior to tender closing for evaluation. Include a list of 10 projects executed over the past five years.
6. Acceptable substitutions will be confirmed by addendum. Substitute materials not approved in writing prior to tender closing shall not be permitted for use on this project.

1.12 WARRANTY

- A. For the Work of this Section, the 12 months warranty period prescribed in subsection GC 32.1 of General Conditions "C" is extended to [24 months] [60 months].
- B. Contractor hereby warrants the modified bituminous roofing underlayment membrane and flashings for leak coverage in [accordance with GC24], but for two years.
- C. Roofing membrane manufacturer hereby warrants the membrane and membrane flashings for leak coverage as a result of faulty materials for a period of five years. Scope of warranty shall include material required to return the membrane to a watertight condition.

PART 2: PRODUCTS

2.01 COMPONENTS & MATERIALS

- A. Components and materials must be obtained as a single-source from the membrane manufacturer to ensure total system compatibility and integrity.

2.02 Membrane Manufacturer:

- A. **Henry Company**, 999 Pacific Coast Highway, Suite 800, El Segundo, CA 90245
Web Site: www.henry.com
- B. Or approved equal

2.04 PRIMERS

- A. Primer for all self-adhering air/vapor barrier membranes shall be Blueskin® Adhesive LVC manufactured by Henry Company (or approved equal) and be fully compatible with membranes.

2.05 SELF-ADHERED UNDERLAYMENT MEMBRANE

- A. Self-adhered underlayment membrane shall be Blueskin PE 200HT, Self-Adhered Roof Underlayment manufactured by Henry, a pebbled surfaced SBS modified bitumen self-adhering membrane with a high density cross laminated polyethylene film, and having a minimum thickness of 1.0mm (40 mils).

PART 3: EXECUTION

3.01 INSPECTION

- A. Examination: Verify that all deck surfaces and substrates are acceptable for installation of the system.

3.02 ROOF UNDERLAY BOARD

- A. Install roof underlay board into a bed of adhesive.
- B. Apply a continuous coat of adhesive to steel deck in accordance with manufacturers requirements and lay underlay board into wet adhesive.
- C. Install only full pieces of underlay board, cut and fit boards to butt tight as recommended by manufacturer. Stagger and offset board joints.

3.3 SELF-ADHERED UNDERLAYMENT MEMBRANE APPLICATION

- A. Apply primer by roller or spray to all surfaces as required by manufacturer and allow to cure dry prior to applying membrane. Primer is not required when self-adhering membrane is applied directly to clean and properly prepared metal deck.
- B. Apply membrane complete and continuous to prepared and primed substrate in an overlapping shingle fashion and in accordance with manufacturer's written instructions. Stagger all vertical joints. Unroll and align air/vapor barrier centered at edge or low point of roof.
- C. Align and position membrane, remove protective film and press firmly into place. Ensure minimum 50 mm overlap at all end and side laps. Promptly roll all laps and membrane with a counter top roller to affect the seal.
- D. Extend membrane to form a continuous watertight membrane across the roof deck, upturn at parapets and curbs, tie-into mechanical penetrations, stack vents and roof drains.
- E. Seal all punctures and penetrations with liquid air vapor barrier mastic prior to installing finish materials.

END OF SECTION - 07 41 13