

PART 1 - GENERAL

1.1 REFERENCES

- .1 Sealant and Waterproofer's Institute - Sealant and Caulking Guide Specification.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 02 81 01 - Hazardous Materials.
- .3 Quality Assurance Submittals: submit following in accordance with Section 01 45 00 - Quality Control.
 - .1 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .2 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence and cleaning procedures.
 - .3 Manufacturer's Field Reports: submit manufacturer's written reports within 3 days of review, verifying compliance of Work, as described in PART 3 - FIELD QUALITY CONTROL.

1.3 QUALITY ASSURANCE

- .1 Qualifications:
 - .1 Applicator: company specializing in performing work of this section with minimum 5 years documented experience with installation of air/vapour barrier systems.
- .2 Mock-Up:
 - .1 Construct mock-up in accordance with Section 01 45 00 - Quality Control.

1.3 QUALITY
ASSURANCE
(Cont'd)

- .2 Mock-Up: (Cont'd)
 - .2 Construct typical exterior wall panel, minimum 4 m high by 4 m wide, incorporating window and frame and sill, insulation, building corner condition, illustrating materials interface and seals.
 - .3 Locate where directed.
 - .4 Mock-up may remain as part of finished work.
 - .5 Allow 24 hours for inspection of mock-up by Departmental Representative before proceeding with air/vapour barrier Work.
- .3 Site Meetings: as part of Manufacturer's Services described in PART 3 - FIELD QUALITY CONTROL, schedule site visits, to review Work, at stages listed.
 - .1 After delivery and storage of products, and when preparatory Work is complete, but before installation begins.
 - .2 Twice during progress of Work at 25% and 60% complete.
 - .3 Upon completion of Work, after cleaning is carried out.

1.4 DELIVERY,
STORAGE AND
HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .3 Avoid spillage: immediately notify Departmental Representative if spillage occurs and start clean up procedures.
- .4 Clean spills and leave area as it was prior to spill.

1.5 WASTE
MANAGEMENT AND
DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

PART 2 - PRODUCTS

- 2.1 SUSTAINABLE REQUIREMENTS .1 Materials and products in accordance with Section 01 35 21 - LEED Requirements.
- 2.2 SHEET MATERIALS .1 SBS modified bitumen, self-adhering integrally laminated to a polyethylene film. Membrane shall have the following physical properties:
- .1 Membrane Thickness: 0.9 mm.
 - .2 Low temperature flexibility: -34°C to ASTM D146.
 - .3 Elongation: 200% minimum to ASTM D412-modified.
 - .4 Minimum Puncture Resistance 178 N to ASTM E154.
 - .5 Lap Peel Strength 1750 N/m width to ASTM D903 180° bend.
- .2 Tie-in Flaps: self-adhering membrane for all window jambs, headers, doors openings, inside and outside corners, and other transitions shall be pre-cut or site cut strips 150 mm wide.
- .3 Low VOC primer for primary self-adhering water resistant air barrier membrane and self-adhering transition membrane shall be a manufacturer's standard. Primer shall have the following physical properties:
- .1 Solids by weight: 40%.
 - .2 Max. VOC <240 grams/litre.
 - .3 Drying time (initial set): 30 minutes at 50% RH and 21°C.
- 2.3 ACCESSORIES .1 Penetration and termination sealant shall be a moisture cure, medium modulus polymer modified sealing compound having the following physical properties:
- .1 Compatible with sheet air barrier and substrate.
 - .2 To ASTM C920, Type S, Grade NS, Class 25.
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- 2.3 ACCESSORIES .1 (Cont'd)
- (Cont'd) .3 Seals construction joints up to 25 mm wide.
- .4 As recommended by air barrier membrane.

PART 3 - EXECUTION

- 3.1 MANUFACTURER'S INSTRUCTIONS .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.
- 3.2 GENERAL .1 Perform Work in accordance with National Air Barrier Association - Professional Contractor Quality Assurance Program and requirements for materials and installation.
- 3.3 EXAMINATION .1 Verify that surfaces and conditions are ready to accept work of this section.
- .2 Ensure surfaces are clean, dry, sound, smooth, continuous and comply with air barrier manufacturer's requirements.
- .3 Report unsatisfactory conditions to Departmental Representative in writing.
- .4 Do not start work until deficiencies have been corrected.
- .1 Beginning of Work implies acceptance of conditions.
- 3.4 PREPARATION .1 Remove loose or foreign matter, which might impair adhesion of materials.
- .2 Ensure substrates are clean of oil or excess dust; masonry joints struck flush, and open joints filled; and concrete surfaces free of large voids, spalled areas or sharp protrusions.
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3.4 PREPARATION (Cont'd) .3 Ensure substrates are free of surface moisture prior to application of self-adhesive membrane and primer.

.4 Ensure metal closures are free of sharp edges and burrs.

.5 Prime substrate surfaces to receive sheet materials in accordance with manufacturer's instructions.

3.5 INSTALLATION .1 Install materials in accordance with manufacturer's instructions.

.2 Secure sheet seal sheathing materials.
.1 Position lap seal over firm bearing.

.3 Install tie-in flaps between window and door frames.
.1 Caulk to ensure complete seal.
.2 Position lap seal over firm bearing.

.4 Apply sealant within recommended application temperature ranges.
.1 Consult manufacturer when sealant cannot be applied within these temperature ranges.

3.6 FIELD QUALITY CONTROL .1 Manufacturer's Field Services:
.1 Obtain written report from manufacturer verifying compliance of Work, in handling, installing, applying, protecting and cleaning of product and submit Manufacturer's Field Reports as described in PART 1 - SUBMITTALS.
.2 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.
.3 Schedule site visits, to review Work, as directed in PART 1 - QUALITY ASSURANCE.

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- 3.7 CLEANING
- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
 - .2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

- 3.8 PROTECTION OF WORK
- .1 Protect finished work in accordance with Section 01 61 00 - Common Product Requirements.
 - .2 Do not permit adjacent work to damage work of this section.
 - .3 Ensure finished work is protected from climatic conditions.