

The Executed Agreement including General Conditions and Supplementary Conditions, Division 01, applicable Drawings and amendments are part of and are to be read in conjunction with this Section

## PART 1 - GENERAL

### 1.1 SUMMARY OF THIS SECTION

- .1 As summarized and described herein, but not restricted to the following:
  - .1 To provide air barrier on the exterior wall assemblies.
  - .2 To provide air/vapour barrier and thru wall flashings to the following components to ensure overlap to the field applied system.
    - .1 Windows
    - .2 Roof/wall junctions
    - .3 Hollow metal door frames.
    - .4 All junctions of dissimilar substrate materials.

### 1.2 REFERENCES

- .1 ASTM C920-14a, Standard Specification for Elastomeric Joint Sealants
- .2 CAN/CGSB 51.32-M77, Sheathing, Membrane, Breather Type

### 1.3 SUBMITTALS

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit manufacturer's product MSDS sheets and installation instructions in accordance with Section 01 33 00 - Submittal Procedures.
- .3 Product data and certification letter indicating percentage by weight of post consumer and post-industrial recycled content for products having recycled content.

### 1.4 QUALITY ASSURANCE

- .1 Contractor to be approved by the Air Barrier Manufacturer. The Applicator/Company specializing in performing work of the Section must have a minimum 5 years documented experience for projects of similar size and scope as specified.
  - .2 Perform Work in accordance with National Air Barrier Association (NABA) - Professional Contractor Quality Assurance Program requirements for materials and installation.
  - .3 Manufacturer's Representative to provide written acceptance of the substrate to ensure same is suitable for installation of this product.
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- .4 Manufacturer's Representative to provide three unscheduled site reviews during the installation and at the completion of this product to ensure that all products and procedures are being installed as per manufacturer's recommendations. Provide written reports for site reviews to the General Contractor.

#### 1.5 MOCK-UP

- .1 Construct mock-up in accordance with Section 01 45 00 – Testing and Quality Control.
- .2 Construct typical flashing around exterior window and frame, junction with roof system; and interface with dissimilar substrates
- .3 Mock-up may remain as part of the Work.
- .4 Allow 24 h for inspection of mock-up by Construction Manager & Consultant before proceeding with air barrier Work.

#### 1.6 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 Keep material dry and under cover until use.
- .4 Use proper hoisting of equipment and/or rigging and follow all applicable safety guidelines when handling or hoisting materials.
- .5 Store from the weather in an enclosed area not subject to heat over 49C.

#### 1.7 WASTE MANAGEMENT AND DISPOSAL

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

#### 1.8 SEQUENCING

- .1 Sequence work to permit installation of materials in conjunction with related materials and seals.
  - .2 Work shall be so scheduled as to provide an air tight seal at the end of each working day on the portion of the wall face being worked on.
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- .3 Coordinate with other related trades to provide a continuity of the air seal.
- .4 Air barrier is not designed for permanent exposure, cover walls as soon as possible.

## 1.9 ENVIRONMENTAL CONDITIONS

- .1 Maintain temperature and humidity conditions as recommended by the Manufacturer.
- .2 Do not install sealant or vapour release adhesive in enclosed spaces without ventilation.

## PART 2 - PRODUCTS

### 2.1 AIR BARRIER (FIELD APPLIED)

- .1 Self adhesive air barrier, microporous film laminate
  - .1 Engineered film with a permeable adhesive technology with split-back poly-release film.
  - .2 Roll width – 30”
  - .3 To requirements of CGSB 51.32.
  - .4 Approved Manufacturers (Product based on Henry BlueskinVP-160):
    - .1 Grace Construction Products Perm-A Barrier VPS
    - .2 Vaproshield Wrapshield SA

### 2.2 THRU WALL FLASHING AND AIR/VAPOUR BARRIER

- .1 Thru wall and penetration membrane flashing. Standard of Acceptance Blueskin ® SA by Henry Company:
  - .1 Acceptable Alternate Manufacturers:
    - .1 Grace Construction Products
    - .2 Soprema
    - .3 IKO

### 2.3 PRIMERS

- .1 In accordance with manufacturer's recommendations.

### 2.4 SEALANTS

- .1 One component, low odor, moisture cure product, silyl-terminated polyether, polymer (STPe).
- .2 To ASTM C920 Type S Grade NS, Class 25
- .3 Sealants to be compatible with membrane system.

.4 Standard of acceptance: Bakor HE925 - BES Sealant.

.5 Acceptable Alternate Manufacturers:

.1 Grace Construction Products

.2 Soprema

## 2.5 ACCESSORIES

.1 Attachments: Galvanized steel bars and anchors, as recommended by the manufacturer.

.2 Thinner and cleaner for sheet material: as recommended by sheet material manufacturer

## PART 3 - EXECUTION

### 3.1 EXAMINATION

.1 Manufacturer Representative to verify that surfaces and conditions are ready to accept the Work of this section.

.2 Ensure all surfaces are clean, dry, sound, smooth, continuous and comply with air barrier manufacturer's requirements.

.3 Report any unsatisfactory conditions to the Consultant in writing.

.4 Do not start work until deficiencies have been corrected. Commencement of Work implies acceptance of conditions.

### 3.2 PREPARATION

.1 Remove loose or foreign matter which might impair adhesion of materials.

.2 Substrates to be 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.

.3 Substrates to be free of surface moisture prior to application of self-adhesive membrane and primer as required per manufacturer's recommendations.

.4 Metal closures to be free of sharp edges and burrs.

.5 Prior to application of covering material, i.e. insulation, etc., the manufacturer's representative is to review the entire field and overlap areas to verify joints are completely sealed, also refer to Section 07 92 00 Joint Sealants.

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### 3.3 PRIMER

- .1 Ensure all areas that are primed receive the self-adhesive sheet Air barrier in the same day, in accordance with manufacturer's recommendations.

### 3.4 INSTALLATION OF AIR BARRIER (FIELD APPLICATION)

- .1 Apply membrane complete and continuous to prepared and primed substrate in a horizontal **"Overlapping Shingle Fashion"**. Stagger all vertical joints.
- .2 Align and position sheet membrane, remove protective file and press firmly into place. Ensure minimum 50mm overlap at all end and side laps. Promptly roll all laps and membrane with a countertop roller to effect the seal.
- .3 Ensure when applied there are no fish mouths, wrinkles etc. Cut out any area and redo in accordance with manufacturer's instructions.
- .4 When using membrane with masonry, position membrane, press in place and cut for ties. Seal around all openings with sealant as recommended by the manufacturer.
- .5 At the end of each day's work, seal the top edge of the membrane where it meets the substrate. Trowel apply a feathered edge to seal termination and shed water.
- .6 Where components, i.e. window frames, pressed steel frames, aluminum door frames, roof membrane areas, where membrane has been provided, ensure a tight bond to all overlap material with a minimum lap of 8" has been maintained.
- .7 Ensure all projections, including wall ties, are properly sealed with an application of sealant as recommended by the manufacturer.
- .8 Membrane applied to the underside of substrate surfaces shall receive special attention on application to ensure maximum surface area adhesion is obtained.
- .9 The use of mechanical fasteners along interior corners may be required by some insulation manufacturers. Consult insulation manufacturer prior to the installation of the insulation.
- .10 Ensure the air barrier is cut around and sealed around ties, spindles, and all projections through the field applied air barrier.

### 3.5 INSTALLATION OF AIR BARRIER (OVERLAP AREAS)

- .1 Provide air barrier material to any components integral within the systems, door frames, aluminum windows, and curtain wall framing, refer to specific sections of components. Adhere to and marry the complete air barrier system with minimum 8" overlap over both elements, ensuring a proper watertight seal.

- .2 Ensure that all air barrier membrane joints and overlaps with through wall membrane flashing are performed in "shingle" application in direction of drainage.
- .3 Ensure air barrier is continuous with roof vapour barrier.
- .4 Ensure air barrier is continuous with the junction of the insulated panel system, existing wall systems, etc.

### 3.6 FIELD REVIEW

- .1 Prior to application of any covering material (i.e. insulation, etc.), the manufacturer's representative is to review the entire field and overlap areas to ensure joints are completely sealed, refer to requirements of Quality Assurance.

### 3.7 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.

END OF SECTION