

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 04 05 00 - Common Work Results for Masonry.
- .2 Section 06 10 00 - Carpentry.
- .3 Section 06 15 00 - Wood Decking.
- .4 Section 07 61 00 - Sheet Metal Roofing.
- .5 Section 07 62 00 - Sheet Metal Flashing and Trim.

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:
 - .1 Product characteristics.
 - .2 Performance criteria.
 - .3 Limitations.
- .3 Submit two copies of Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS).
- .4 Quality assurance submittals:
 - .1 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .2 Instructions: submit manufacturer's installation instructions and comply with written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

1.3 QUALITY ASSURANCE

- .1 Health and Safety Requirements: do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .2 Mock-Ups:
 - .1 Submit mock-ups in accordance with Section 01 45 00 - Quality Control.
 - .2 Construct mock-up of sheet vapour barrier installation including one lap joint, one inside corner. Mock-up may be part of finished work.
 - .3 Mock-up will be used to judge workmanship, substrate preparation, and material application.
 - .4 Locate where designated.
 - .5 Allow 48 hours for inspection of mock-up by Departmental Representative before proceeding with vapour barrier work.

- .3 When accepted, mock-up will demonstrate minimum standard of quality required for this work. Approved mock-up may remain as part of finished work.

1.4 DELIVERY, STORAGE AND HANDLING

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

Part 2 Products

2.1 SHEET VAPOUR BARRIER

- .1 Roofing underlayment: self-adhering membrane for high temperature applications composed of two waterproof materials (a high density, cross laminated polyethylene film coated on one side with a layer of butyl rubber adhesive), and having the following properties:
 - .1 Service Temperature (ASTM D1204): 148.8 °C (300 °F)
 - .2 Membrane thickness (ASTM D3767, method A): 0.76 mm
 - .3 Tensile strength, membrane (ASTM D412, Die C modified): 1720 kN/m²
 - .4 Elongation, membrane (ASTM D412, Die C modified): 250 %
 - .5 Low temperature flexibility (ASTM D1970): Unaffected @ -29 °C
 - .6 Adhesion to plywood (ASTM D903): 525 N/m
 - .7 Maximum permeance (ASTM E96): 2.9 ng/m²s Pa (0.05 Perms)

2.2 ACCESSORIES

- .1 Primer for self-adhering membrane: water based, in accordance with the manufacturer's recommendations.

Part 3 Execution

3.1 INSTALLATION

- .1 Self-adhering underlayment application:
 - .1 Schedule installation such that underlayment is covered by roofing within the published exposure limit of the underlayment.
 - .2 Do not install underlayment on wet or frozen substrates.
 - .3 Install when surface temperature of substrate is a minimum of 5 degrees C and rising.
 - .4 Remove dust, dirt, loose materials and protrusions from deck surface.
 - .5 Install membrane on clean, dry, continuous structural deck. Fill voids and damaged or unsupported areas prior to installation.
 - .6 Brush or roll on primer (on concrete and masonry surfaces only).
 - .7 Allow primer to dry. Surface must be covered the same day.

- .8 Unroll, place and cut membrane.
- .9 Start by peeling back silicon sheet 150 mm.
- .10 Adhere membrane to substrate while continuing to unroll silicon sheet.
- .11 Install membrane such that all laps shed water. Work from the low point to the high point of the roof at all times. Apply the membrane in valleys before the membrane is applied to the eaves. Following placement along the eaves, continue application of the membrane up the roof.
- .12 Side laps minimum 3-1/2 inches (89 mm) and end laps minimum 6 inches (152 mm) following lap lines marked on underlayment.
- .13 After entire membrane is glued, apply pressure over surface using rubber roller. Remove air pockets.
- .14 Inspect for continuity. Repair punctures and tears with additional membrane layer before work is concealed.

3.2 EXTERIOR SURFACE OPENINGS

- .1 Cut sheet vapour retarder to form openings and ensure material is lapped and sealed to frame.

3.3 CLEANING

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

END OF SECTION