



PART 4 - SELF ADHERING WATERPROOFING

Part 1 - General

1.1 General

- .1 Related Documents: Provisions established within General and Supplementary Conditions of the Contract, Division 1 - General Requirements, and the Drawings are collectively applicable to this Section.
- .2 All work shall meet the requirements of the Local Building Code, including all amendments up to project date.

1.2 Section Includes

- .1 Provision of modified bituminous waterproofing sheet membranes, primers and modified mastics.

1.3 Coordination

- .1 Co-ordinate work under this section with work of related sections.

1.4 Related Work Specified Elsewhere

Cast-In-Place Concrete	Section 03 33 00
Unit Masonry:	Section 04 20 00
Thermal Insulation	Section 07 21 00
Sheet Metal Flashings and Trim	Section 07 62 00

1.5 References

- .1 ASTM International
 - .1 E96 - Test Method for Water Vapour Transmission of Materials
 - .2 D1970 - Standard Specification for Self-adhering Polymer Modified Bituminous Sheet Materials
 - .3 D41 - Standard for Unfilled Asphalt Primer
- .2 Canadian Government Standards Board
 - .1 CAN/CGSB 37-GP-56M- 9th Draft, 1997 - Standard for Modified Bituminous Sheet Membranes.
 - .2 CAN/CGSB 37-GP-9Ma - Standard for Unfilled Asphalt Primer



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- .3 CAN/CGSB 37-GP-5M - Standard for Asphalt Plastic Cement

1.6 Submittals

- .1 Submit under provisions of Section 01 33 00, Submittal Procedures.
- .2 Product Data: Submit Technical Data Sheets, Details, Material Information Sheets and Material Safety Data (MSDS) Sheets.
- .3 Samples of waterproofing membrane shall be in size and quantities for testing and visual approval by the Specifying and/or the Consultant/Inspection authority.

1.7 Quality Assurance

- .1 Installer Qualifications: Minimum of 3 years documented experience in the installation of self-adhesive waterproofing membranes and/or with projects of similar size and scope.
- .2 Pre-Installation Conference:
 - .1 Convene a pre-start meeting with the installer to review surface preparation and product installation.
- .3 Inspections: Specification may allow for Third Party Inspection. IKO, at their own discretion, may inspect the installation of the waterproofing membrane.

1.8 Delivery, Storage, And Handling

- .1 Deliver, store, handle, and protect products in accordance with Section 01 65 00, Product Delivery Requirements.
- .2 Packaging: Clearly mark manufacturer's name and product type. Include manufacturer's installation instructions.
- .3 Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- .4 Store products in weather protected environment, clear of ground and moisture. Do not double stack. Do not store near sources of heat or in direct sunlight. Systematically rotate stock so that the material that has been stored the longest will be used first. On the project site, especially during winter and colder months, the AquaBarrier rolls should be stored in a heated shelter which should be at least +10°C and only the rolls which will be used that day should be removed just prior to installation.
- .5 Maximum storage temperature is 50°C.



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1.9 Safety Requirements

- .1 Do not install adhesive or modified mastics in an enclosed environment without adequate ventilation.
- .2 Provide adequate fire extinguishers as required by applicable codes or other authorities of jurisdiction due to the presence of flammable primers and mastics.
- .3 No smoking or open flames are allowed in the vicinity of the product application due to volatile vapours from the flammable products noted in 1.9.2.

1.10 Job Conditions

- .1 Proceed only when weather is favourable. Work shall not be carried out during inclement weather conditions.
- .2 Temperatures during application shall not be less than -12°C (14°F). Follow low temperature procedure recommended by manufacturer when applicable.
- .3 Maximum jobsite temperature conditions for application of membranes is 50°C.

1.11 Protection

- .1 Protect surrounding surfaces from overspray or splatter.

Part 2 - Products

2.1 Materials

- .1 All components of the air barrier system, including membrane, sealants, primers, mastics and adhesives shall be supplied by one manufacturer.
- .2 IKO AquaBarrier FP: Self-adhesive modified bituminous membrane, 1.5 mm (60 mils) thickness conforming to ASTM D1970 by IKO Industries Ltd. The top surface will be covered with a high density cross-laminated white polyethylene film with a release paper on the underside.
- .3 Protection board: Protectoboard asphaltic board with glass facers, thickness to be 3.0 mm (1/8 inch) by IKO Industries Ltd.
- .4 Extruded polystyrene insulation: Minimum 25 mm (1 inch) thickness to CAN/ULC S-701 by Dow Chemical or O.C. Celfortec for below grade applications.
- .5 Drainage Layer: in accordance with the manufacturer's recommendations.



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- .6 IKO S.A.M. Adhesive, IKO S.A.M. Adhesive LVC or Unfilled asphalt conforming to CAN/CGSB 37-GP-9Ma.
- .7 AquaBarrier Mastic: Conforming to CAN/CGSB 37-GP-5M.
- .8 Aquabarrier AVB (standard) - **application temperature range for AVB is +10°C to +50°C.**
- .9 Aquabarrier AVB LT (Low Temp) - **application temperature range for AVB LT is -10°C to +10°C.**
- .10 IKO S.A.M. Water based Adhesive - **application temperature for S.A.M. Water Based adhesive is 5°C to 40°C - Drying time 30 - 60 minutes. (for ICF applications)**

Part 3 - Execution

3.1 Examination

- .1 Examine site conditions and surfaces to ensure that they are in satisfactory condition for the commencement of the work of this section.
- .2 Concrete Blocks:
 - .1 Unevenness between blocks not to exceed 2.5 mm (100 mils).
 - .2 Excess mortar in joints to be removed.
 - .3 Holes and openings must be patched in concrete blocks or mortar joints.
- .3 Cast-In-Place Concrete:
 - .1 Ridges at the frame work joints shall not exceed 5.0 mm (197 mils) in height.
 - .2 Surface to be flat, remove any lumps of concrete.
 - .3 All surfaces must be clean and dry, free from laitance, release form oils etc.
 - .4 Tie holes are to be filled with appropriate material.
 - .5 Ensure concrete is cured and dried for a minimum of 7 days.
- .4 Examine work of other trades for defects and discrepancies and report them to the Consultant in writing. Do not proceed with work until surfaces are satisfactory.

3.2 Preparation

- .1 Substrate to conform to Canadian Standards and Guidelines listed in Article 1.5.



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- .2 Ensure the integrity of the air/vapour barrier will not be hindered by deficiencies in the substrate including but not limited to sharp protrusions, voids, unevenness in joints, etc.
- .3 Install product under acceptable weather conditions.

3.3 Installation - Priming

- .1 Apply IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC using a short nap roller or spray equipment. Masks and safety glasses must be worn if spray methods are utilized on the project. Use of IKO S.A.M. Water Based Adhesive is for ICF applications.
- .2 Apply IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC at the rate of 0.33 - 0.65 litres per square metre and IKO S.A.M. Water Based Adhesive at 4.37-5.25 litres per square meter depending on surface porosity.
- .3 Allow IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC to be dry to touch before commencing membrane application. Drying time will depend on ambient temperature.
- .4 For proper adhesion of Aquabarrier FP & AVB membranes to all substrates, appropriate IKO S.A.M. Adhesives are required.

3.4 Installation - Membrane

- .1 Install waterproofing membrane to primed substrate at ambient temperatures above -12°C (14 °F). Membrane is to be installed at all locations as noted in the Contract Documents and/or Architectural Drawings.
- .2 Orientation of membrane may depend on substrate type and ease of accessibility. On poured concrete the membrane should be installed vertically or horizontally, whereas concrete block with brick ties will denote application in the horizontal plane.
- .3 Install self-adhesive air/vapour barrier to substrate in manageable lengths, approximately 2.5 metres (6.5 feet).
- .4 Install a reinforcing gusset strips at all inside and outside corners, and at the junction of the foundation and concrete footing. The reinforcing gusset strips will be a minimum of 150 mm (6 inches) wide and installed centred over the transition so that the laps are equal on both adjacent surfaces.
- .5 Remove the release paper from half of the gusset and install onto the primed substrate. Press the membrane firmly to ensure adequate adhesion. Push membrane into the inside corner before removing the balance of the release paper.
- .6 Install reinforcement strips of waterproofings 150 mm (6 inches) onto the foundation wall above the footing, peel the release paper and extend the reinforcement strip onto the horizontal footing plane and terminate approx 25mm (1") from the vertical face of the



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- concrete footing.
- .7 Cut and position field membrane on the vertical plane, the top edge should terminate at grade level and the bottom edge should terminate at footing and foundation wall junction overlapping the reinforcement strip.
 - .8 Remove a portion of the release paper, approximately 200 mm (8 inches) from the back of waterproofing membrane prior to installation. Position membrane for installation and begin installation at the top of the foundation wall. Apply sufficient hand pressure or use a roller to ensure adhesion to the primed substrate.
 - .9 Remove the release paper pulling from behind and parallel to the membrane. Continue to apply sufficient pressure to ensure adequate adhesion to the substrate during removal of the release paper.
 - .10 Install successive courses of membrane ensuring that all end laps are 150 mm (6 inches), and all side laps are 75 mm (3 inches). Seal all end and side laps with a roller.
 - .11 Seal top edge and bottom edge of field and reinforcement membranes to the substrate with modified mastic at the end of each workday.
 - .12 Do not allow membrane to come in contact with coal tar products such as creosote, EPDM membranes or polysulphide based sealants.
 - .13 Prior to installation of the protection board, inspect membrane for punctures or tears. Any location where the membrane's integrity has been breached, repairs are mandatory. The repair patch must extend at least 150 mm (6 inches) beyond the damaged area on all sides. Seal the perimeter edges of the repair patch with a bead of modified mastic.
 - .14 Do not install the protection board if the Contract Documents require the approval of the waterproofing membrane installation by the Specifier and/or the Consultant/Inspector.
 - .15 Apply protection board as per manufacturer's recommendations.
 - .16 If applicable, install the drainage layer in lieu of protection board as per manufacturer's recommendations.
 - .17 For ICF installation - to ensure water does not come into contact with **ICF** insulation, extend the AVB/FP membrane past grade level by min 15 cm (6 in).

3.5 Cleaning

- .1 Daily as the work proceeds and on completion, remove all surplus materials and debris resulting from the foregoing work.



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- .2 Remove all stains, asphalt, caulking or other adhesive from all affected surfaces.

3.6 Protection

- .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 membrane is protected from U.V. radiation (sunlight) exposure within a maximum of 30-60 days.

End of Section 07 52 19

IKO Industries manufactures and sells air/vapour barrier materials. IKO does not practice architecture or engineering. Therefore the design responsibility remains with the architect, engineer, or consultant. We hope the information given here will be of some assistance. It is based upon data considered to be true and accurate and is offered solely for the user's consideration, investigation and verification. Nothing contained herein is representative of a warranty or guarantee for which IKO Industries can be held legally responsible. IKO does not assume any responsibility for any mis-interpretation or assumptions the reader may formulate.
