

SECTION 072413
Exterior Insulation and Finish System PB
Specification

Part 1 GENERAL

1.01 SECTION INCLUDES

- A. Exterior Insulation and Finish System (EIFS) Class PB as defined by EIFS Industry Members Association. (EIMA)
- B. Expanded Polystyrene (EPS) Insulation Board.

1.02 SCOPE OF WORK

- A. Provide all materials, labor, and equipment to install the ShurKote PB, Exterior Insulation and Finish System (EIFS).
- B. Related Sections:
 - 1. Concrete 03300
 - 2. Unit Masonry 04200
 - 3. Light Gauge Steel Framing 05400
 - 4. Sheathing 06100
 - 5. Sheet Metal Flashing and Trim 07620
 - 6. Sealants 07900
 - 7. Doors and Windows 08000

1.03 REFERENCE DOCUMENTS

- A. Construction Standards
 - 1. ACI – American Concrete Institute
 - 2. AISC – American Institute of Steel Construction, Inc.
 - 3. APA – American Plywood Association
 - 4. ASTM – American Society for Testing and Materials
 - 5. EIMA – EIFS Industry Members Association
- B. Code Jurisdictions
 - 1. ICBO AC 24
 - 2. IBC and IRC Building Codes
 - 3. ESR 1936

1.04 TERMS / DEFINITIONS

- A. Applicator – The contractor that applies the EIFS.
- B. Adhesive – A Cementitious material used to attach the insulation board to the substrate and for embedding mesh. A non-Cementitious material for attaching the insulation board to wood substrates.
- C. Aesthetic Joint – A groove in the EPS designed to create aesthetics and used to provide starting and stopping points during the application of the finish coat. A minimum 3/4" thickness of EPS shall remain below the deepest point in the aesthetic groove. Aesthetic joints are not expansion or control joints nor should they be used in lieu of expansion or control joints.
- D. Back wrapping – The application of the reinforced base coat on the exposed edge of the

- EPS insulation board and a minimum of 2 1/2" on the face of the EPS. Also referred to as embedding the details mesh.
- E. Base Coat – The material applied to the face of the insulation board and reinforced with one or more layers of mesh to function as the weather barrier.
 - F. Base Coat Mixture – A field mixed blend of base coat and Portland cement.
 - G. Building Expansion Joint – A joint through the entire building structure designed to accommodate structural movement.
 - H. Class PB System – A polymer-based EIF system where the base coat varies in thickness depending upon the number of layers, or thickness, of reinforcing material. The reinforcing material is glass fiber mesh, which is embedded into the base coat per ShurKote EIFS PB recommendations and with no mesh color visible. Protective finish coats, of various thicknesses, in a variety of textures and colors, are applied over base coat.
 - I. Aesthetic Joint-a groove or inset detail cut into the face of the EPS insulation board..
 - J. Design Professional – The person or firm that is responsible to create the plans and specifications for the entire project.
 - K. EIFS – Exterior Insulation and Finish System
 - L. EIMA – EIFS Industry Members Association
 - M. Finish Coat – An acrylic based, factory mixed decorative and protective coating that is applied to the base coat.
 - N. EPS insulation Board – Expanded Polystyrene Board, manufactured in accordance with the EIFS manufacturer's specifications, attached to the substrate and covered with the reinforced base coat and finish.
 - O. Reinforcing Mesh – Balanced, open weave, basic glass fiber mesh(es) supplied by the manufacturer of the EIFS, treated for compatibility with other materials of the system, which functions to strengthen the system and adds impact resistance.
 - P. Mechanical Fastener – Typically, a plastic washer and a mechanical fastener utilized to attach the insulation board to the substrate.
 - Q. Sheathing – A substrate in a sheet form.
 - R. Substrate – The material to which the EIFS is attached.

1.05 QUALITY ASSURANCE

- A. Special Inspections
 - 1. Special inspections of this system are required in accordance with the International Building Code/2000, Sections 1403.2 and 1704.12 when the system is applied over non-masonry (sheathed) substrates. Follow the guidelines of the local jurisdictional building authority to ensure that all the necessary inspections have been accomplished.
 - 2. The general contractor will be responsible for inspecting the project to ensure that all the exclusions (flashing and sealants for example) specifically listed in the accepted project bid have been completed prior to the starting the ShurKote EIF PB system application.
- B. Design and Detailing
 - 1. General
 - a. ShurKote current published details, specifications, data sheets, technical bulletins and other literature/information are minimum standards and guidelines that shall be followed when designing and detailing a project with the ShurKote EIF System.
 - b. Details shall conform to ShurKote details and shall be consistent with the project requirements.

- c. ShurKote must approve, in writing, any deviations from the standard published details.
 - d. The design professional or the engineer should determine where the dew point would occur in relationship to the wall assembly and the project location during summer and winter conditions.
 - e. Drip details shall be specified in accordance with ShurKote published details.
 - f. The minimum slope of inclined surfaces shall not be less than 6" (152mm) in 12" (304mm) with a maximum length of 12" (304mm) unless approved in writing by ShurKote. Inclined surfaces which are or could be defined as roofs by the building codes are not approved applications by ShurKote
 - g. All of the EPS insulation board must be completely encapsulated with the ShurKote base coat and reinforcing mesh.
 - h. The use of dark colors must be considered in relation to wall surface temperature as a function of local climatic conditions.
 - i. The EPS shall be separated from the interior of the building by a 15-minute thermal barrier.
 - j. The use and maximum thickness of EPS shall be in accordance with the applicable building codes.
 - k. The EIF System shall be recognized by IBC and IRC Model Code Organizations.
 - l. It is the responsibility of the design professional to determine if a product is suitable for their intended use. The design professional of the project shall be responsible for all decisions pertaining to the design, details, structural capability, attachment details, shop drawings and the like. ShurKote has prepared specifications, details and product information guides to assist as guidelines for the use and installation of the products. ShurKote is not responsible for the design, details, structural capability, attachment details and shop drawings whether it is based on ShurKote information or not.
2. Substrate
- a. The maximum deflection under full flexural design loads of the substrate system shall not exceed L/240.
 - b. Acceptable substrates for ShurKote EIFS include unpainted brick, unit masonry, concrete, stucco brown coat, exterior grade gypsum sheathing (ASTM C-79 or ASTM C-1177), and plywood and approved cementitious sheathings.
 - c. Substrates not approved by ShurKote published literature shall be approved by the ShurKote in writing prior to the application or the system.
 - d. The project architect or engineer shall approve the substrate with regard to the required structural performance.
3. Expansion joints
- a. Control /Expansion joints shall be installed in the EIFS a maximum of every 75 lineal feet. Reference construction documents for specific locations.
 - b. Expansion joints in the system are required at building expansion joints, at prefabricated panel joints, where substrates change, at floor lines in wood framed construction, and where structural movement is

- anticipated. Reference construction documents for exact locations.
4. Aesthetic Joints
 - a. Aesthetic joints may be installed to provide sufficient break points in the EIF System to prevent cold joints from occurring in the finish coat.
 - b. Aesthetic joints shall not be used in lieu of an expansion or control joint.
 5. Sealants (Section 07900)
 - a. Sealants and backer rod, as required at expansion joints and dissimilar substrates, shall provide a complete watertight system.
 - b. The sealants in an EIFS expansion joint, or any sealant joint that anticipates significant movement, shall be bonded to the reinforced base coat, not the finish coat. The color of the mesh shall not be visible and the texture of the mesh shall not be exposed within base coat at these locations.
 - c. All penetrations through the system such as hose bibs, dryer vents, lighting fixtures, air- conditioning hoses, etc. must be properly sealed at the substrate prior to the system application to insure the integrity of the system.
 - d. A secondary sealant installed by others is used at all penetrations through the wall system after the system installation has been completed.
 - e. Reference Section 07900 for specific sealant instructions.
 6. Flashings/Secondary Seals (Sections 07620 and 07900)
 - a. Expandable Foam Seal may be used under and around windows, doors and at all penetrations. Plan this seal to block any air or water infiltration at any opening in the wall system and to protect the sheathing from any primary seal failure or failure in a wall penetration component. Reference ShurKote Product Information Guides for additional information.
 - b. Metal flashing may be installed at heads of openings if required by the product manufacturer.
 - c. Continuous metal or other approved flashing shall be installed at heads of ganged windows.
 - d. Flashing shall be installed at rooflines in a manner to prevent any intrusion of water behind the EIFS. This shall include the use of roof kick-out flashing at roof terminations and other details promoted by the NRCA.
 - e. When the EIFS is applied to the chimney, a chimney cricket shall be installed according to the recommendations of the NRCA.
 - f. Seals for electrical and plumbing installations shall conform to the recommendations of NEC and the locally recognized plumbing code.
 - g. Wooden decks must be flashed before the EIF system is installed. Refer to ShurKote's details.
 7. Surface Mounted Objects
 - a. Surface mounted objects are those items that are mounted on the surface of the ShurKote EIF system.
 - b. Objects mounted on the surface include but are not limited to signs, handrails, downspouts, etc..
 - c. The mounting bolts or screws must be inserted through a compression sleeve filled with sealant.

- d. The compression sleeve should be equal to the thickness of the ShurKote EIF system (from the substrate to the finish) to prevent any compression or indentation of the EIF system.
 - e. The diameter of the compression sleeve should be 1/8" greater than the mounting bolts or screws.
 - f. The compression sleeves must be of a non-corrosive material.
- C. Qualifications
- 1. The EIFS Manufacturer shall have manufactured Exterior Insulation and Finish Systems in the United States for at least 10 years.
 - 2. The Applicator shall be knowledgeable in the proper installation of the UltraKote Class PB EIF System.
 - 3. The Applicator shall have demonstrated the ability to install the system on projects of similar size and complexity.
 - 4. The Applicator shall provide the proper equipment, manpower and supervision on the job site to install the system in compliance with project plans and specifications.
 - 5. The Insulation Board Manufacturer shall be approved by ShurKote to produce EPS in accordance with ShurKote specifications.
 - 6. The sealant contractor shall be experienced in the installation of high performance industrial and commercial sealants (Section 07900).
 - 7. When specified erect a sample wall mock-up of the class PB EIF system using materials and joint details required for final work. Provide special features as directed for sealant and contiguous work. Build mock-up at the site where directed of full thickness, indicating the proposed color, texture, and workmanship to be expected in the completed work. Obtain architect's acceptance of the mock-up in regard to aesthetic quality before start of work. Retain mock-up during construction as a standard for judging completed work. Do not alter, move, or destroy mock-up until work is completed, and until final acceptance of the project by architect.

1.06 SUBMITTALS

- A. On request the Applicator shall submit a list of completed projects of like size and complexity.
- B. The Applicator shall submit a certificate of training indicating that they have been given instructions on the proper installation of the EIF System.
- C. On request, the Applicator shall submit EIFS Manufacturer's current literature, brochures, specifications, and details.
- D. On request, the Applicator shall submit sufficient samples of each finish texture and color selected. The samples shall be prepared with the same tools and techniques required for the actual project. Color and texture should be approved based on the job site mock-up samples.
- E. On request, the Applicator shall provide any shop drawings that may be applicable to the project for approval by the project architect.
- F. On request, the applicator shall receive one sample each of any wall penetrations (e.g. light box, exterior electrical box, plumbing fixtures, pipe penetration sizes, coping cap sizes, etc.).

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials in original unopened packages with labels intact. Verify all quantities, colors, and textures against bill of lading.

- B. Store all materials protected from direct exposure to weather conditions and at temperatures not less than 40° F (4° C) or greater than 110° F (43° C).
- C. Stack insulation board flat, fully supported off the ground and protected from direct exposure to the sun.
- D. On request material safety data sheets (MSDS) shall be supplied for the components of the EIFS and be available at the job site.

1.08 JOB CONDITIONS

- A. Ambient air temperatures shall be 40° F (4° C) or greater and rising at the time of installation of the ShurKote products and shall remain at 40° F (4° C) or greater for at least 24 hours after application.
- B. Supplemental heat and protection shall be provided as required when the temperature and conditions are not in accordance with installation requirements. Sufficient ventilation and time shall be provided to ensure that materials have sufficiently dried prior to removing supplemental heat.
- C. Adequate protection shall be provided to prevent weather conditions (humidity, temperature, and precipitation) from having an affect on the curing or drying time of ShurKote materials.
- D. Adjacent materials and the ShurKote EIF system shall be protected during installation and while curing from weather and shall be protected from site damage.
- E. Coordinate installation of the ShurKote EIF system with related work specified in other sections to ensure that the wall assembly is protected to prevent water from getting behind the system. The cap flashing and backer rod and sealant shall be installed as soon as possible after the finish coat has been properly cured. When this is not possible, temporary protection shall be provided immediately in this area.
- F. All sealants shall be installed in a timely manner. Protect open joints from water intrusion during construction with backer rod, or temporary covering, until permanently sealed.
- G. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffolding lines, and texture variations, etc.

1.09 REPAIR AND MAINTENANCE

- A. Refer to ShurKote specific repair and maintenance manual.
- B. The property owner or their designated representative shall inspect the Sealants and Flashings annually to verify that the products are not allowing water intrusion. If any sealant and/or flashing needs repair it should be done immediately.

1.10 LIMITED MATERIALS WARRANTY

- A. A Limited Materials Warranty shall be issued upon the receipt of a properly completed warranty request form.

Part 2 PRODUCTS

2.01 GENERAL

- A. All components of the ShurKote EIF system shall be obtained from ShurKote or its authorized distributors. No substitutions of, or additions of, other materials shall be submitted without prior written permission from ShurKote. Any non-approved substitutions or additions will void the warranty.

2.02 MATERIALS

- A. Adhesives
 - 1. ShurKote WB: An acrylic-based product mixed one-to-one by weight with Portland cement for use as the adhesive to bond insulation board to an approved substrate.
 - 2. ShurKote DB: A polymer based cementitious product mixed with 5 to 6 quarts of water for use as an adhesive.
 - 3. ShurKote Acrylic Adhesive: A ready mixed 100% polymer based non-cementitious adhesive primarily for use over wood substrates.
- B. Mechanical Fasteners and Plastic Washers
 - 1. The mechanical fastener washer should be a 2 1/8" d with a recessed void to receive the appropriate non-corrosive fastener. The appropriate fastener shall be used to meet the requirements of the substrate being used on the project, local building code and the anticipated wind loads.
- C. Insulation Board
 - 1. Insulation Board shall meet or exceed ASTM C-578 and ShurKote requirements for EPS.
 - 2. Nominal 1.0 pf² aged expanded polystyrene.
 - 3. Flame spread and smoke development shall be 25 and 450 or less respectively per ASTM E-84.
 - 4. Maximum size 2'x4'x4" (.6m x 1.2m x .1m). Refer to actual contract documents to determine actual insulation board thickness.
- D. Reinforcing Mesh - Open weave glass fiber fabric, treated for alkaline resistance and compatibility with ShurKote Base Coats, and conforming ASTM D-76, D-579, D-5035, MIL-Y-1140 and meeting a minimum Medium Impact Resistance (50-89 in-lbs) when tested to EIMA 101.86 Impact Resistance Standards.
 - 1. Detail Mesh – nominal 4.5 oz./sq. yd.
 - 2. # 4 Standard Mesh – nominal 4.5 oz./sq. yd.
 - 3. # 10 Intermediate Mesh – nominal 10.4 oz./sq. yd.
 - 4. # 20 High Impact Mesh – nominal 21 oz./sq. yd.
- E. Base Coats
 - 1. ShurKote WB: An acrylic-based product mixed one-to-one by weight with Portland cement designed for use with reinforcing mesh as the base coating over the insulation board as an adhesive to adhere the EPS insulation board.
 - 2. ShurKote DB: A polymer based cementitious product mixed with 5 to 6 quarts of water for use as an adhesive adhere the EPS insulation board and with reinforcing mesh as the base coating over the insulation board.
- F. ShurKote Finishes are acrylic-based or elastomeric-based wall coatings available in a variety of colors and textures. The following textures are available:
 - 1. Swirl texture - The traditional rill texture
 - 2. Fine Texture – A very fine aggregate for a smooth sand texture
 - 3. Medium Texture – A slightly larger smooth sand texture
 - 4. Coarse Texture – A larger sand aggregate for a heavy defined sand texture.
- G. Expanding Foam Sealant (for sheathed substrates): Reference Interior Sealant Specification, Section 07900.
- H. Water: Shall be clear, clean and potable without any foreign matter that may affect the color and setting qualities of the cement, adhesive, base or finish coat.
- I. Cement: Type I or I-II Portland cement meeting ASTM C-150.
- J. Metal Flashing Components: Complying with SMACNA Recommendations. Reference Section 07620.

- K. Sealant Systems: Reference Sealant Specification, Section 07900.
- L. Window & Door Systems: Detailed by the design professional and suitable for EIFS. Ref. Section 08000

Part 3 EXECUTION

3.01 INSPECTION

- A. Prior to the application of the ShurKote EIF System, the substrate shall be examined for compliance with the contract documents and ShurKote specifications. The substrate shall have no planar irregularities greater than 1/4" in 10'. The General Contractor and Design Professional shall be advised in writing of any discrepancies. Work shall not proceed until unsatisfactory conditions are corrected.

3.02 MIXING

- A. ShurKote WB: Mix at a weight ratio of 1 to 1 with Portland Type I or I/II, white or grey cement. Mix using a 1/2", 400-500 RPM drill motor and paddle mixer or equivalent. Let stand for 3-5 minutes and remix until the desired consistency is achieved. Small amounts of clean water can be added for workability. Do not over mix.
- B. ShurKote DB: Add 5 to 6 quarts of water with the 50-lb. bag in a clean bucket for mixing. Mix with a paddle mixer or equivalent using a 1/2", 400-500 RPM drill motor. Let stand for 3-5 minutes and remix until the desired consistency is achieved. Small amounts of clean water can be added for workability. Do not over mix.
- C. ShurKote Acrylic adhesive is a ready mixed material that that only needs to be mixed to a homogenous consistency. No additives allowed.
- D. ShurKote Finish: Mix the finish coat with a paddle mixer using a 1/2", 400-500 RPM drill motor. Small amounts of water, up to 16oz (.43l) can be added for workability. Mix until reaching a uniform consistency. (It is important that the same amount of water be added to each pail to ensure a consistent color.)
- E. Additives shall not be added to ShurKote's materials unless written approval has been received from ShurKote

3.03 PREPARATION

- A. Protect contiguous work from damage during application of the ShurKote EIF System. Temporary covering may be required to prevent over spray or splattering of exterior finish coatings on other work.
- B. Protect substrate from inclement weather during installation. Prevent infiltration of moisture behind the system that may affect the substrate or the adhesion of the insulation board to the substrate.
- C. Adhesive, Base Coats and Finishes shall not be installed when ambient air temperature is below 40°F (4°C). The temperature shall remain at or above 40°F (4°C) during mixing, application and until materials have cured.
- D. Sufficient scaffolding, manpower and tools shall be provided to prevent cold joints.
- E. The substrate shall be clean to obtain optimum bond between substrate and adhesive used to attach insulation board.
- F. Flashings shall be installed as required by construction documents and ShurKote's details in a manner to prevent the intrusion of water behind the insulation board. All flashing materials should direct the water to the exterior face of the finished system.

3.04 INSTALLATION, GENERAL

- A. Reference architectural details for full wall system requirements.
- B. Comply with the manufacturers' current published instructions, (specifications, details, product information guides and technical bulletins) for the installation of the ShurKote EIF System.
- C. Comply with local building codes.

3.05 BACKWRAPPING (where required)

- A. Adhesively secure reinforcing detail or standard mesh to the substrate positioned so that a minimum of 2 1/2" of the mesh is onto the substrate. (The reinforcing mesh shall be wide enough to encapsulate the exposed thickness edge of the insulation board and cover return up the face of the insulation board a minimum of 2 1/2".)
- B. After the insulation board is applied, complete the back-wrapping procedure by applying the base coat, embedding the remaining mesh and returning it onto the face of the insulation board a minimum of 2 1/2".
- C. Where sealants are applied the reinforcing mesh color shall not be visible and the texture of the base coat shall be smooth so that the pattern of the mesh is covered.
- D. Apply finish in accordance with manufacturer's details. (Finish shall not be applied to areas where the design professional has anticipated dynamic movement or at an EIFS to EIFS joint.).

3.06 INSULATION APPLICATION

- A. Adhesive Method
 - 1. Approved substrates for adhesive application:
 - a. When using ShurKote WB, ShurKote DB:
 - (i) Exterior Grade Gypsum Sheathing ASTM C-79
 - (ii) Dens Glass Gold ASTM C-1 177
 - (iii) Fiber Bond
 - (iv) Durock
 - (v) PermaBase
 - (vi) Clean and unpainted Masonry
 - (vii) Concrete
 - (viii) Brick
 - b. When using ShurKote Acrylic Adhesive:
 - (i) Dens Glass Gold ASTM C-1 177
 - (ii) 5/8" Exterior Grade OSB
 - (iii) 1/2" CDX Exterior Grade Plywood
 - (iv) Fiber Bond
 - (v) Exterior Grade Gypsum Sheathing ASTM C-79
 - 2. Notched Trowel Method – ShurKote DB, ShurKote WB or ShurKote Acrylic Adhesive shall be applied to the entire surface of one face of the approved insulation board with a 3/8" or 1/2" notched trowel. Apply the ribbons of adhesive parallel to the 2' dimension of the insulation to establish a continuous drainage plane for incidental moisture.
 - 3. Ribbon and Dab Method – ShurKote WB or ShurKote DB shall be applied in a 2" (51mm) wide x 3/8" (10mm) thick ribbon of adhesive mixture to the entire perimeter of one face of the approved insulation board with a trowel. Apply eight 4" (102mm) diameters x 3/8" (10mm) thick dabs of adhesive mixture equally spaced in two rows, to the area inside the perimeter ribbons.
 - 4. Do not apply the adhesive directly to the substrate.

5. Keep the edges of the insulation board clean. Do not allow adhesive buildup between the insulation boards.
6. Apply the approved insulation board over a dry substrate with the long edge oriented horizontally.
7. The application of the insulation board shall commence at the base of the wall from a level line of support.
8. After the adhesive has been applied to EPS insulation board it shall be installed by aligning the EPS insulation board edges and raising/rotating the EPS board up into place.
9. Uniform pressure shall be applied over the entire surface of the insulation board to achieve contact with the substrate.

Note: If the adhesion is questioned, periodically check the contact of the adhesive to the substrate by removing a piece of insulation board. Proper adhesive contact should be demonstrated by the evidence of similar amounts of adhesive adhered to both the insulation board and the substrate. The cohesive break should occur when the board is removed. If the cohesive break had occurred prior to the adhesive set the substrate is more than likely out of plane and should be corrected to meet minimum standards of this specification. If a cohesive failure does occur contact a UltraKote representative.

10. The insulation board shall be:
 - a. Installed in a running bond pattern with staggered vertical joints.
 - b. Interlocked at the inside and outside corners.
 - c. Offset from the sheathing joints a minimum of 6".
 - d. Offset, picture framed, around the corners of openings such as doors and windows.
11. Allow for proper spacing at windows, doors, penetrations and other openings so that sealant systems can be installed in accordance with ShurKote specification, details and the construction documents.
12. Provide a properly constructed joint through insulation board where expansion joints occur in substrates or where they have been specified by the design professional.
13. For sheathed substrates, trace electrical boxes, light boxes and other penetrations, on the foam. Place a dry board over the electrical box and press firmly to indent the surface of the EPS insulation board. Cut approximately 1/4" to 3/8" larger than box and remove insulation piece. Apply the base coat adhesive to the back of the EPS insulation board and secure in place.
14. The EPS insulation boards shall be butted tightly. Any gaps greater than 1/16" (1.6mm) between insulation boards shall be filled with slivers of insulation board. Adhesive shall not be used to adhere foam when filling gaps.
15. Gaps between insulation boards shall not be filled with adhesive or base coat materials.
16. Allow adhered insulation to remain undisturbed for a period of 24 hours prior to rasping the foam.
17. Rasp the entire surface of the insulation board to level any irregularities. All irregularities greater than 1/16" (1.6mm) shall be sanded flat.
18. Cut aesthetic joints as indicated on construction drawings. Always maintain a minimum 3/4" of insulation board under aesthetic joints.
19. Clean rasped insulation board in preparation for base coat application.

- B. Adhesive and Mechanical Method
 - 1. Adhesive and Mechanical method of insulation application is required when insulation is attached over Oriented Strand Board (OSB) or when deemed necessary by the design professional or project engineer.
 - a. ShurKote acrylic adhesive shall be installed per typical installation requirements to adhere the insulation board into place over the OSB sheathing.
 - b. Within 12 hours after installation, a minimum of 4 and up to 8 approved mechanical fasteners washer with the appropriate fastener shall be installed per 2'x4' board. Due to wind loads in specific regions additional fasteners may be required.
- C. Mechanical Method
 - 1. When mechanical fastening is necessary for the application of the insulation board, an approved 2 1/8" mechanical fastener washer with a void to receive the appropriate non-corrosive fastener shall be used. ShurKote must approve any other mechanical fastening systems in writing prior to use with the ShurKote System.
 - 2. The requirements of the geographical conditions of the area, local code requirements and the performance of the fasteners, washers and their test results in conjunction with the specified substrate and the thickness of foam specified for use shall determine fastening patterns.

3.07 BASE COAT PREPARATION

- A. Inspect adhered insulation board to ensure the installation meets the requirements set forth in ShurKote specification, details, product information guides, technical bulletins and the construction documents. Make necessary repairs to ensure the installation meets the requirements prior to commencement of the base coat application.
- B. If the foam is yellowed or has developed a powdery film due to sun exposure the foam must be rasped and cleaned prior to the base coat application.
- C. Complete the back wrapping at all system terminations by embedding the reinforcing mesh as described in section 3.05 of this specification.
- D. Install minimum 9 1/2" x 12" diagonal reinforcement at all windows, doors, louvers, or other penetration corners. Apply field mesh as soon as possible after diagonal mesh application.
- E. Reference architectural documents for locations of designed impact classifications.

3.08 BASE COAT APPLICATION

- A. Apply the base coat to the entire surface of the insulation board to the thickness required for the specified reinforcing mesh to be applied. The thickness of the mesh will dictate the thickness of the basecoat.
- B. Apply the Standard Mesh base coat continuous over the entire surface of the EPS insulation board with all edges lapped a minimum of 2 1/2" (64mm) on all sides.
- C. Standard Reinforcing Mesh shall be continuous through all interior and exterior corners extending beyond the corner a minimum of 12" from both directions creating a minimum of two layers of standard reinforcing mesh on all interior and exterior corners.
- D. Apply the base coat adhesive over the EPS surface in a width consistent with the width of the mesh being used and immediately embed ShurKote reinforcing mesh into wet base coat with a trowel, working from the center toward the edges, until the mesh is fully covered and a smooth surface is achieved. The color of the mesh shall not be visible but a slight mesh pattern may be visible.

- E. Intermediate mesh may be applied in a single layer but an additional layer of base coat adhesive may be required to smooth out the lap lines prior to the finish application.
- F. Medium and High Impact Mesh should not be overlapped or wrapped around corners. Carefully end butt all joints and allow the base coat adhesive to cure prior to applying a complete layer of standard mesh over the entire surface including corners.
- G. All EPS shapes shall be completely covered with standard reinforcing mesh embedded into the base coat or be coated with ShurKote Foam Shape,
- H. Allow the base coat to cure a minimum of 12 to 24 hours prior to additional base coat or finish coat applications.

3.09 SHURKOTE FINISH COAT APPLICATION

- A. Surface irregularities in the base coat, such as trowel marks, insulation board lines and reinforcing mesh laps shall be corrected prior to the finish application.
- B. Apply the ShurKote Finish in the color and texture as approved by the project owner or the project architect with sufficient manpower and equipment to insure a continuous operation without cold joints, scaffolding lines etc. Texture finish shall match approved jobsite samples. Thickness and coverage will vary depending on the specified final appearance.
- C. Apply the finish in accordance with the manufacturer's details. Specifically the finish should not be applied inside any expansion or sealant joints.
- D. Trowel Application
 1. Apply the ShurKote Finish to the clean, dry and cured base coat with a stainless steel trowel.
 2. Apply the finish to a uniform thickness. The final thickness should be the size of the largest aggregate in the finish.
 3. Float the Finish with a plastic float in a uniform motion to achieve the desired texture. (Refinish cannot be floated. A second application of the Refinish shall be applied to create the desired texture.)
- E. Spray Application
 1. Apply ShurKote ShurPrime tinted to match the selected finish color. Allow ShurPrime to cure a minimum of 12 hours prior to finish coat application.
 2. Using a conventional plaster hopper gun or a proven pump, spray finish over the primed base coat to achieve desired texture using a circular overlapping pattern keeping the spray gun at a 90° angle to the surface and maintaining the same distance to the wall at all times.
 3. Be cautious of flooding an area with too much finish because it may appear shinier when it dries.
- F. Provide protection from rain and temperatures below 40°F (4°C) for a minimum of 24 hours after application. Longer protection may be necessary during lower temperatures and/or higher humidity conditions.

3.10 JOB SITE CLEANUP

- A. Clean work area in accordance with contract documents removing all excess materials, droppings and debris. Clean adjacent surfaces.
- B. Other trades may now install their work – Sheet Metal (Section 07620), Sealants (Section 07900), Mechanical (Section 15000), Electrical (Section 16000).

End of Specification