

EXTERIOR INSULATION AND FINISH SYSTEM
GUIDE SPECIFICATION
FOR CLASS PB

TOTAL WALL'S T- WALL SOFT-COAT SYSTEM

PART 1: GENERAL

1.01. DESCRIPTION AND SCOPE

A. Requirements contained within Division I (General Requirements) are applicable to the work required of this section.

Provide labor, materials, equipment and supervision necessary to complete the exterior wall and finish systems including:

1. application of TOTAL WALL adhesive and/or mechanical fasteners for attachment of insulation boards;
2. application of a TOTAL WALL soft coat base coat and TOTAL WALL reinforcing mesh over the insulation boards;
3. application of TOTAL WALL Acrylic Finish Coat;
4. application of backer rod and caulk sealant.

B. Related work specified elsewhere:

1. Masonry, Division 4
2. Metals, Division 5
3. Wood Construction, Division 6
4. Sheathing, Division 9
5. Caulking/Sealants, Division 7
6. Portland Cement Plastering, Division 9

C. Referenced Documents:

1. Standards

- ASTM A526 Specification for Sheet Steel, Zinc Coated (Galvanized) by Hot-Dip Process, Commercial Quality
- ASTM B69 Specification for Rolled Zinc
- ASTM B117 Test Method for Salt Spray (Fog) Testing
- ASTM C67 Mod. Test Method For Saturated Freeze/Thaw Cycles of Exposure
- ASTM C150 Specification for Portland Cement.
- ASTM C297 Test Method for Tensile Strength of Flat Sandwich Constructions in Flatwise Plane
- ASTM C578 Specification for Preformed, Cellular Polystyrene Thermal Insulation
- ASTM C1135 Test Method for Determining Tensile Adhesion Properties of Structural Sealants
- ASTM D968 Test Method for Abrasion Resistance of Organic Coatings by Falling Abrasive
- ASTM1784 Specification for Rigid PVC
- ASTM D2247 Practice for Testing Water Resistance of Coatings in 100% Relative Humidity

ASTM E84 Test Method for Surface Burning Characteristics of Building Materials

ASTM E108 Mod. Full Scale Structural Fire Testing of Wall Systems

ASTM E330 Test Method for Structural Performance by Uniform Static Air Pressure Difference

ASTM E331 Test Method for Water Penetration by Uniform Static Air Pressure Difference

ASTM E695 Method for Measuring Relative Resistance to Impact Loading

ASTM G23 and G53 Accelerated Weathering for Exposure of Nonmetallic Materials

Fed Mil Spec 810D Test Method for Determining the Resistance to Mold and Fungus Growth

2. Building Code Standards

National Building Code, Building Officials and Code Administrators (BOCA), Section 1406.0

Standard Building Code, Southern Building Code Congress International (SBCCI), Sections 717.4 and 717.5

Uniform Building Code, International Conference of Building Officials (ICBO), UBC Standard 26-4

International Building Code, International Code Council International Residential Code (IRC)

D. Terms and Definitions

1. Class PB System

A class of EIFS where TOTAL WALL reinforcing mesh is embedded into TOTAL WALL soft coat base coat ranging from 1/16" to 1/8" thickness. Typically, one layer of base coat and reinforcing mesh are used; however, an additional layer of base coat and reinforcing mesh may be used to increase the impact resistance of the system. The TOTAL WALL reinforcing mesh is a woven glass fiber fabric, which is coated with a protective plastic material. A TOTAL WALL acrylic finish coat in a chosen color and texture is applied over the base coat.

2. Insulation Board

A preformed rigid insulating foam plastic that functions to reduce heat flow through a wall and to provide a surface for the base coat and reinforcing mesh. Typically, a 2' by 4' expanded polystyrene (EPS) foam board with an average density of 1 lb. per cubic foot is used in thicknesses that vary from 3/4" to 4". The EPS board must meet specific performance and safety specifications.

3. Adhesive

A material used to attach the foam insulation board to the substrate. The Total Wall base coat may be used as the

adhesive over raw masonry and other selected substrates. TOTAL WALL Blue Mastic Adhesive functions over most substrates, including sheathings and painted surfaces.

4. Base Coat
A material which is applied to the face of the insulation board and is used to embed the reinforcing mesh and functions as a weather barrier.
5. Reinforcing Mesh
An open weave fiberglass fabric that is coated with a protective plastic. It is embedded into a layer of TOTAL WALL base coat to strengthen the system.
6. Finish Coat
A premixed, synthetic plaster material, which functions to provide a decorative color and texture coat and to provide additional weather resistance.
7. Accessories
Items such as weep bases, corner beads and casing beads that may be utilized in the assembly of the system.
8. Mechanical Fastener
A combination screw and plastic washer plate that is used to attach foam plastic insulation boards to a wall.
9. Sealant
A permanently flexible self-sticking compound that is used to seal seams in the system such as the seams occurring between the system and windows and doors.

1.02. DESIGN LIMITATIONS AND DETAILING

- A. The maximum allowable system deflection, normal to the plane of the wall, is L/240.
- B. Design wind load shall not exceed TOTAL WALL'S allowable wind load as stated in TOTAL WALL Code Evaluation Reports.
- C. All details shall conform with TOTAL WALL recommendations and shall be consistent with the project requirements.
 1. General
 - a. At all locations the substrate shall be completely encapsulated by the lamina.
 - b. The insulation board shall be separated from the interior of the building by 1/2" gypsum wallboard or equivalent thermal barrier material which will limit the average temperature rise of the unexposed surface to not more than 250 degrees F after 15 minutes of fire exposure, when subjected to the ASTM E-119 time-temperature curve.
 - c. The minimum thickness of EPS shall be 3/4" and the maximum thickness shall not exceed 4".

- d. The length and slope of inclined surfaces shall follow the guidelines listed below:
 - (1). Minimum slope: 6" of rise in 12" of horizontal projection.
 - (2). Inclined surfaces shall not be used for areas defined as roofs by building codes.
 - (3). Use not meeting the above criteria shall be approved in writing by TOTAL WALL prior to installation.
2. Substrate System
 - a. Shall be engineered to withstand all applicable loads including live, dead, positive and suction wind, seismic, etc. Bond strength, fastener strength and connection strength shall be analyzed and engineered. Appropriate factors of safety shall be used.
 - b. The maximum deflection under positive or suction full design loads of the substrate system shall not exceed L/240.
3. Substrates
 - a. Application of the system shall be to the following substrates only:
 - (1). Sound brick
 - (2). Sound unit masonry
 - (3). Sound concrete
 - (4). Exterior grade gypsum sheathing
 - (5). Dens-Glass gypsum sheathing
 - (6). Sound stucco
 - (7). Oriented-strand board (OSB)
 - (8). WR and MR gypsum board, when acceptable to code authorities
 - (9). Exterior grade plywood
 - (10). Cement Board
 - b. Substrates other than those listed above shall require approval by TOTAL WALL in writing prior to installation of the System.
 - c. Sheathing substrates shall be oriented with their strong axis perpendicular to the supporting framing.
 - d. The applicator shall verify that the proposed substrate is acceptable to the applicable regulatory authorities prior to installation of the system.
 - e. Painted substrates shall have any loose paint removed using appropriate materials and methods. Layers of paint shall be removed to the virgin substrate.
 - f. The substrate shall not have any planar irregularities of greater than 1/4" in eight lineal feet.
4. Expansion Joints

- a. Continuous expansion joints shall be installed at the following locations:
 - (1). Where expansion joints occur in the substrate.
 - (2). Where building expansion joints occur.
 - (3). At floor lines in wood-frame construction.
 - (4). Where the system abuts other materials.
 - (5). Where the substrate changes.
 - (6). Where significant structural movements occur, such as
 - (a). Changes in roof line;
 - (b). Long continuous elevations;
 - (c). Changes in building shape and structural system.
- b. Expansion and contraction of the system and adjacent materials shall be taken into account in the design of expansion joints, with proper consideration given to sealant properties, installation conditions, temperature range, coefficient of expansion of materials, joint width-to-depth ratios, etc.
- c. Isolation joints are required around all wall penetrations, including doors and windows.

5. Details

- a. TOTAL WALL'S latest published information shall be followed for standard detail treatments.
 - b. Non-standard detail treatments shall follow the recommendations of TOTAL WALL.
 - c. Corners shall be reinforced by wrapping reinforcing fabric around the corner from both directions for a minimum of 8", or with corner mesh, or approved PVC accessory.
 - d. Openings shall be reinforced using a 9 1/2" wide strip of detail mesh laid at a 45 degree angle to the opening corner.
- D. All areas requiring higher than standard impact resistance shall be detailed in the drawings and described in the contract documents.
 - E. The use of dark colors must be considered in relation to estimated wall surface temperatures as a function of local climate conditions.

1.03. QUALITY ASSURANCES

A. Contractor

The contractor shall have a minimum of two years experience in the wall construction trades, be licensed by TOTAL WALL for application of PB Systems, demonstrate the ability to install the system based on projects of similar size and complexity, and meet the approval of the architect. The contractor shall provide a list of completed projects. The contractor shall provide the equipment,

manpower and supervision necessary to install the system in compliance with the project plans and specifications.

B. Insulation Board Manufacturer

The Insulation Board Manufacturer shall be recognized by TOTAL WALL as capable of producing insulation board to meet the system requirements. The insulation board manufacturer shall be listed by an approved agency, and the board and packaging shall be labeled by TOTAL WALL and the applicable building code.

1.04. SUBMITTALS

- A. Sample Panel: The contractor shall submit to the architect a sample panel of at least 1' x 1' demonstrating the texture and color of the finish desired. The architect shall review the panel and determine the suitability of the finish presented.
- B. The contractor shall submit a list of five projects exhibiting the contractor's EIFS installation skills and which have been completed within the last five years. The list shall include project name, location, description of work and date.
- C. TOTAL WALL'S literature, including application instructions, specifications and details.
- D. The Insulation Board Manufacturer's documentation to show compliance with TOTAL WALL and Code requirements.

1.05. PRODUCT DELIVERY AND STORAGE

A. Delivery:

- 1. Deliver all materials supplied by TOTAL WALL in original, unopened containers with legible manufacturer's identification intact.

B. Storage:

- 1. Store all products off the ground, under cover and protected from dampness and sunlight.
- 2. Warning: EPS rigid insulation is combustible and may constitute a fire hazard if improperly used or installed. EPS insulation should be adequately protected. Use only as directed by the specific instructions for these products. During shipping, storage, installation or use, these materials should not be exposed to open flame or any ignition sources. For proper protection of rigid insulation, consult the National Fire Protection Association (NFPA) standards or the authority having jurisdiction. Store EPS under cover, off the ground with full support, stacked horizontally.
- 3. All liquid products shall be stored at 40 degrees F or above and protected from freezing. Protect from exposure to direct sunlight during storage.

1.06. JOB CONDITIONS

- A. Install all materials in strict accordance with all safety and weather conditions required by the product literature, and in accordance with ASTM C926, paragraph 7, and as modified by the applicable standards of the authorities having jurisdiction.
- B. Apply all coatings when the ambient temperature is 40 degrees F and rising. A minimum temperature of 40 degrees F should be maintained for twenty-four hours after completion of work. Supplementary heat must be provided if stated temperature conditions do not exist. Do not apply coatings to a frozen surface.
- C. Protect surrounding areas and surfaces during application of the wall system.
- D. Protect system from precipitation during application and for at least 24 hours after application.

1.07. COORDINATION AND SCHEDULING

- A. Closely coordinate work with related sections and trades.
- B. Protect the tops of walls to prevent water from entering behind the system. Any required cap flashing, overhangs, or drip edges shall be installed as soon as possible after the finish coat has been applied.
- C. Install all sealants in a timely fashion. Protect open joints from water intrusion with backer rod or other means until the sealant has been installed.
- D. When required by code or job stipulations, contract with a certified third party EIFS inspector prior to any TOTAL WALL EIFS installation. The inspector shall be certified by EDI, AWCI, or by another applicable certifying agency as approved by TOTAL WALL. The inspector will make a minimum of three on-site inspections which include phases of rigid foam attachment, base coat and mesh application, and finish and sealant application.

1.08. SYSTEM WARRANTY

- A. A TOTAL WALL warranty shall be applied for prior to the EIFS installation.
- B. Upon completion of the EIFS installation in accordance with specifications and payment of monies due TOTAL WALL, TOTAL WALL shall issue either 5-year materials warranty or a single source 10-year materials and labor warranty, dependent upon the job and credentials of the applicator.

PART 2: PRODUCTS

2.01. MANUFACTURERS

- A. All materials related to EIFS shall be obtained from TOTAL WALL, P. O. Box 366, Rio, WI 53960 [888-702-9915] or a TOTAL WALL

approved supplier.

2.02. EXTERIOR INSULATION SYSTEM COMPONENTS

- A. Rigid insulation board shall be 2' x 4' Grade I EPS, meeting ASTM C578 performance standards, an average density of 1 pound per cubic foot, cured for 6 weeks at 68 F or equivalent accelerated conditions, labeled with TOTAL WALL and code markings, and a minimum of 3/4" thickness and a maximum thickness of 4" as specified by drawings.
- B. Adhesive shall be TOTAL WALL Blue Mastic Adhesive. TOTAL WALL T-2000 Base Coat and TOTAL WALL Foam N' Base are acceptable alternate adhesives over clean, raw, and sound non-wood substrates.
- C. Base Coat shall be TOTAL WALL T-2000 Base Coat (or T-2000 Journeyman series), a dry polymer modified Portland Cement based mixture that is mixed with water at the job site; or TOTAL WALL Foam N' Base (or TOTAL WALL Foam N' Base Journeyman series), a wet acrylic polymer slurry that is mixed with Portland cement at the job site, or TOTAL WALL EZ Base NCB, a premixed, ready-to-use base coat. The resultant mixture is used to embed the reinforcing fabric to the face of the polystyrene board.
- D. Reinforcing Mesh shall be a plastic coated fiberglass reinforcing fabric as required and supplied by TOTAL WALL:
 - 1. Four (4) ounce - Standard, 25-35 in-lbs. impact
 - 2. Six (6) ounce - Standard Plus, 35-40 in-lbs. impact
 - 3. Eleven (11) ounce - Intermediate, 75-90 in-lbs. impact
 - 4. Fifteen (15) ounce - High, 180-220 in-lbs. impact
 - 5. Twenty (20) ounce - Ultra High, 230-240 in-lbs. impact
 - 6. The High and Ultra High meshes require a second layer of 4 ounce Standard mesh and base coat.
- E. Portland Cement shall be Type I, I-II, or II meeting ASTM C 150, fresh and free of lumps.
- F. Water shall be clear, potable and free of foreign matter.
- G. Sealant Systems
 - 1. Shall be one of the following:
 - a. Tremco, Inc.
 - (1). Sealant: "Dymeric"
 - (2). Prime: Use manufacturer's recommended primer.
 - (3). Backer Rod: Dow "Ethafoam"
 - (4). Bond Breaker: 3M #226, 481, 710
 - b. Pecora Corporation
 - (1). Sealant: "Dynatrol II" or 890 Silicone
 - (2). Prime: Use manufacturer's recommended primer.
 - (3). Backer Rod: Dow "Ethafoam"
 - (4). Bond Breaker: 3M #480 or Valley Industrial Products #90
 - c. Dow Corporation

- (1). Sealant: Dow 790 series
 - (2). Prime: Use manufacturer's recommended primer.
 - (3). Backer Rod: Dow "Ethafoam"
- d. Sonneborn Corporation
- (1). Sealant: Sonneborn NP2 and 150 series
 - (2). Prime: Use manufacturer's recommended primer.
 - (3). Backer Rod: Dow "Ethafoam"
- e. Sika Corporation:
- (1). Sealant: SikaFlex 15LM series
 - (2). Prime: Use manufacturer's recommended primer.
 - (3). Backer Rod: Dow "Ethafoam"
2. System materials shall be dried prior to sealant installation.
 3. Color shall be selected by the architect.
 4. Other sealants may be allowed if approved in writing by TOTAL WALL.
- H. Accessories, if required by TOTAL WALL and job specifications, shall be of proper size and configuration for their function and shall be manufactured from rigid PVC, solid zinc alloy, or galvanized steel.
- I. Fasteners, if required by TOTAL WALL and job specifications, shall have the necessary pull-out strength, corrosion resistance, length and design as supplied by TOTAL WALL or Wind-Lock to meet the system design loads.
- J. Finish material shall be a 100% acrylic synthetic pre-mixed finish, such as the Premium, Classic or Journeyman series finishes, as manufactured by Total Wall.

2.03. MIXING AND PREPARATION

- A. TOTAL WALL T-2000 Soft Coat Base Coat
1. Obtain a clean container for mixing. Do not use contaminated or dirty containers.
 2. Add 5 quarts of fresh, potable water to the container.
 3. Open a new 50-lb. bag of TOTAL WALL T-2000 Base Coat.
 4. Using a low speed mechanical mixer, begin stirring while adding the TOTAL WALL T-2000 Base Coat. After all of the TOTAL WALL T-2000 Base Coat is added, continue mixing an additional three minutes, being sure to scrape the sides and bottom of the mixing container. Add up to 1 quart of additional water to adjust the mixture to a creamy trowel-grade consistency.
 5. Allow the mixture to stand for 2-3 minutes and mix again, on low speed for an additional minute. Clean water may be added to enhance workability.
 6. Begin using product immediately.
- A2. TOTAL WALL Foam N' Base (an alternative to TOTAL WALL T-2000 Base Coat)

1. Obtain a clean container for weighing and mixing. Do not use contaminated or dirty containers.
 2. Open a new pail of TOTAL WALL Foam N' Base and stir with a low speed mechanical mixer for one minute.
 3. In separate containers, weigh equal quantities of TOTAL WALL Foam N' Base and Portland Cement.
 4. Using a low speed mechanical mixer, begin stirring the TOTAL WALL Foam N' Base while adding the Portland cement in small increments. Up to 1 quart of clean water may be added to enhance workability. After all of the Portland Cement is added, continue mixing on low speed an additional two minutes, being sure to scrape the sides and bottom of the mixing container.
 5. Allow the mixture to stand for three minutes. Mix again on low speed for an additional minute. Additional clean water may be added to enhance workability.
 6. Begin using product immediately.
- A3. TOTAL WALL EZ Base NCB (an alternative to either T-2000 or Foam N' Base)
1. Mix for 30 seconds and add up to 10 ounces of water per 5-gallon pail to adjust workability.
- B. TOTAL WALL Acrylic Finish Coat
1. The TOTAL WALL Finish Coat shall be thoroughly stirred with a clean mixer until a uniform workable consistency is obtained.
 2. A small amount of water may be added to adjust workability. Maximum water addition should not exceed 12 oz. per 5 gal pail. The water must be clean and potable.
 3. No additives or material of any kind, such as rapid binders, antifreeze, accelerators, fillers, pigments, etc., shall be added unless specified by TOTAL WALL.
 4. The TOTAL WALL Finish Coat shall be used immediately after mixing. The container shall be kept closed when not in use.
 5. The mixing tool shall be cleaned immediately after use.
- C. Adhesive
1. If desired to enhance workability, up to 8 ounces of water may be added to TOTAL WALL Blue Mastic Adhesive with low speed mixing.

2.04. PERFORMANCE REQUIREMENTS

The TOTAL WALL system and its components shall meet the following performance requirements:

ASTM E84 Surface Burning	FSI = 10, SDI = 35
ASTM E108 mod. Full Scale Fire Test	Pass (no flame spread)

MIL STD 810D Mildew Resistance (Method 508.3)	28 days - no growth
ASTM E695 Full Scale Impact Loading	No damage
ASTM D968 Sand Abrasion, 500 liters	260 L/ml, no deleterious effects
ASTM D2247 Water Resistance	No deleterious effects
ASTM B117 Salt Spray (300 hours)	No deleterious effects
ASTM E96 Water Vapor Transmission	1.79 perms
ASTM C67 Mod. Saturated Freeze/Thaw (50 cycles)	No deleterious effects
ASTM C297 Tensile Adhesion	No failure in adhesive, base or finish
ASTM E330 Modified By E72-80, Negative and Positive wind Load	(Positive 102, negative 118 psf)
ASTM E331 Wind Driven Rain (5 gal/sq.ft./hour rain fall plus 65 mph wind)	No penetration
ASTM D2797 Impact Resistance	18 in-lbs.
ASTM G23 Accelerated Weathering (2000 hrs)	No deleterious effects
ASTM C209 Tensile Bond	26 PSI
ASTM C203 Flexural Strength	0.555 deflection @ 73.5 load
UBC 26-9 ISMA Fire Test	Pass
NFPA Radiant Heat Fire Tests	Pass

PART 3. EXECUTION

3.01. COMPLIANCE

- A. The installation shall be performed strictly in accordance with TOTAL WALL'S current literature and current job specifications.

3.02. INSPECTION

- A. Examination of Substrate
 - 1. Prior to installation of the system, the substrate shall be examined by the applicator as follows:

- a. The substrate shall be a type approved for the system (see Section 1.02-C.3a).
 - b. The substrate surface shall be free of foreign materials such as oil, dirt, form-release agents, wax, glazing, water, moisture, frost or any substance that may interfere with bond.
 - c. The substrate shall be examined for compliance with contract documents.
 - d. The substrate shall be examined for soundness, such as tightness of connections, crumbling or looseness of surface, voids and projections.
 - e. The substrate shall be examined for dimensional correctness.
2. The architect and general contractor shall be advised of all discrepancies. Work shall not proceed until unsatisfactory conditions are addressed.

3.03. INSTALLATION

- A. Mixing - - All materials requiring preparation shall be labeled accordingly; the contractor shall follow all instructions.
- B. System Terminations - - At all system terminations, the insulation board shall be back-wrapped with reinforcing mesh and base coat.
 1. Reinforcing mesh and Base Coat shall be applied so that it will encapsulate the terminated edge of the insulation board. This back-wrapping shall extend a minimum of 2 1/2" on the face and the back of the insulation board.
 2. The encapsulated edge of the insulation board may be completed either prior to board attachment, or after board attachment by first attaching the reinforcing mesh to the substrate.
 3. System details may also be terminated with approved system accessories.
- C. Installation of Rigid Insulation
 1. Grade I EPS
 - a. Grade I EPS shall be applied to the substrate surface starting from the bottom and shall be supported by permanent or temporary means.
 - b. The Grade I EPS shall be applied with the long edge oriented horizontally, with its joints offset with respect to the sheathing joints, using a running bond pattern, and with interlocking insulation boards at inside and outside corners.
 - c. Grade I EPS pieces shall be precut to fit openings, corners and projections prior to application of the TOTAL WALL Blue Mastic Adhesive.

- d. Grade I EPS pieces smaller than 2' x 4' may be used, such as at corners, etc. In all cases, a 33% minimum contact area for adhesive shall be maintained.
2. TOTAL WALL Blue Mastic Adhesive
 - a. Ribbon and Dab Method: Ribbons of TOTAL WALL Blue Mastic Adhesive shall be applied with a trowel to one surface of the Grade I EPS. The ribbons shall be 2" wide, 3/8" thick around the entire perimeter of the Grade I EPS. The adhesive shall not be applied to the ends of the Grade I EPS. Eight (8) dabs of adhesive 4" in diameter by 3/8" thick shall be applied to the area within the perimeter ribbon. A minimum of 33% of the Grade I EPS surface shall be in contact with the TOTAL WALL Blue Mastic Adhesive.
 - b. Notched Trowel Method: Beads of TOTAL WALL Blue Mastic Adhesive shall be applied to one surface of the Grade I EPS using a notched trowel having an edge profile meeting TOTAL WALL requirements. The trowel shall produce beads that stand out 3/8" from the surface of the Grade I EPS. There shall be a minimum of eight beads per 12" of trowel. Each bead shall be a minimum of 3/16" wide. The adhesive shall not be applied to the ends of the Grade I EPS.
3. The prepared Grade I EPS shall be immediately taken to the substrate and applied as follows:
 - a. The Grade I EPS shall be lightly affixed to the substrate with the lower horizontal edge and adjacent vertical edge 1/2" from the adjacent Grade I EPS boards.
 - b. The Grade I EPS shall be pressed down and slid diagonally until it tightly abuts the edges of the adjacent Grade I EPS boards.
 - c. The entire outside surface of the Grade I EPS shall be tamped with even pressure to ensure complete contact of the adhesive to the substrate and within the plane of the adjacent EPS boards.
 - d. At all doors, windows and other penetrations, the EPS boards shall be held back 1/2" to allow for backer rod and caulk sealant.
4. If gaps in the Grade I EPS boards occur, slivers of Grade I EPS shall be cut and shaped to fit the gaps and inserted without using any adhesive or filler between EPS boards. Alternatively, EnerFoam or Wind-Lock Foam to Foam may be used to fill the gaps and then rasped off after curing.

5. Once the TOTAL WALL Blue Mastic Adhesive has taken a set, all surfaces of the Grade I EPS boards shall be sanded or rasped until flush. Low areas shall not be filled with base coating to produce a level surface.
6. If TOTAL WALL mechanical fasteners are used, fastener density shall be one fastener per square foot. For frame construction, fasteners shall be of the proper type and configured to penetrate studs a minimum of 1/2". For masonry, fastener holes must be predrilled with an appropriately sized masonry bit so that the fastener shall have a firm attachment to and specified penetration into the substrate.
7. Grooves which may be required as a design feature shall be routed into the outside surface of the Grade I EPS, using a high speed router, hot groover, or hot knife and proper blade. The minimum thickness of the Grade I EPS at any point in the routed groove or feature shall not be less than 3/4".
8. Foam shapes of Grade I EPS, if used, shall be applied directly to the surface of the Grade I EPS, either before or after application of the base coat. (Available from American Prefab, 888-702-9918).
9. TOTAL WALL'S latest published detailed instructions and special instructions for this project shall be followed regarding installation of the Grade I EPS.

D. TOTAL WALL Soft Coat Base Coat

1. The surface of the Grade I EPS shall be inspected as follows:
 - a. For flatness, use a straight edge. High areas and out of plane Grade I EPS joints shall be sanded flat. Low areas shall not be built up with base coating to form a flat surface.
2. Damaged areas and foreign materials shall be addressed prior to application of the Base Coat or Finish.
3. For deterioration due to weathering or any other cause, refinish the EPS surface by sanding, while maintaining the flatness of the surface.
4. Using a steel trowel, apply the TOTAL WALL Soft Coat Base Coat to the surface of the Grade I EPS to a uniform thickness of approximately 1/16".
5. The Reinforcing Mesh shall immediately be embedded into the wet base coating using a steel trowel. Working from the center to the edges while smoothing out wrinkles, the surface of the base coating shall be smoothed with a trowel until the Reinforcing Mesh is fully embedded. Apply additional TOTAL WALL Soft Coat Base Coat as necessary so that the pattern of the Reinforcing is not visible beneath the surface of the base coating.

6. The Reinforcing Fabric pieces shall be lapped a minimum of 2 1/2" on all sides.
 7. A period of 18 hours shall lapse to allow the TOTAL WALL EIFS Soft Coat Base Coat to cure. The base coat shall be protected from damage and weather while curing.
 8. Details of the installation of the base coat at the ends of walls, windows, insulation board edges, corners, etc., shall be in accordance with TOTAL WALL'S latest detailed installation instructions and current job drawings.
- E. High Impact or Ultra High Impact Mesh (Optional - see drawing for areas required)
1. Using a steel trowel, the TOTAL WALL Soft Coat Base Coat shall be applied to the surface of the Grade I EPS to a uniform thickness of 3/32".
 2. The High Impact mesh shall immediately be embedded into the wet base coating using a stainless steel trowel. The surface of the wet base coating shall be smoothed with the trowel until the High Impact mesh is fully embedded. The pattern of the High Impact mesh shall not be visible beneath the surface of the base coating.
 3. Ends of adjacent High Impact mesh pieces shall be tightly abutted. High Impact mesh pieces shall not be lapped. High Impact mesh sections shall be worked into the wet base coating from the center to the edges while smoothing out wrinkles.
 4. A period of 18 hours shall elapse to allow the first layer of High Impact base coat to form a positive bond. Protection from damage and weather while curing during this period must be provided.
 5. The surface of the first layer shall be examined after curing for projections and loose strands of High Impact mesh and corrected to produce a flat surface.
 6. A second layer consisting of TOTAL WALL Soft Coat Base Coat and Standard reinforcing mesh shall be applied over the High Impact layer per Section 3.03. D.3-8 above.
 7. Details of the installation of the High Impact Mesh base coat at the ends of walls, windows, panel edges, corners, etc., shall be in accordance with TOTAL WALL'S latest published detailed installation instructions.
- F. Finish
1. The TOTAL WALL EIFS 100% Acrylic Finish Coat shall be applied continuously and in one operation to the entire wall surface, or to a logical break point. A wet edge shall be maintained. The TOTAL WALL Finish Coat shall not be allowed to set up in a distinct area. Sufficient manpower,

scaffolding and equipment shall be employed to insure a continuous operation and a uniform appearance.

2. Work shall proceed toward natural wall stops and corners.
3. A clean stainless steel trowel shall be used.
4. Apply the TOTAL WALL Finish to the dry base coat maintaining a wet edge at all times. The thickness of the TOTAL WALL Finish Coat shall be in accordance with TOTAL WALL specifications and job requirements to achieve the desired result.
5. Immediately texture the finish with the appropriate float, trowel or tool required to achieve the specified texture and appearance. All mechanics shall use the same design tool, equipment, timing and technique to achieve uniformity.
6. Certain finishes may be spray applied. TOTAL WALL shall be contacted for specific information for this project if a spray application is indicated.
7. The Finish shall be protected from contamination, weather and damage for a minimum of 24 hours.

G. Sealant and Backer Rod

- A. Insure that backer rod, primer (if required) and sealant are properly installed at all applicable openings and joints. These will include expansion joints and isolation joints. Consult TOTAL WALL details and job documents for additional information.

3.04. JOB SITE CLEANUP

- A. All excess TOTAL WALL system materials shall be removed from the job site by the applicator.
- B. All surrounding areas where TOTAL WALL EIFS has been applied shall be left free of debris and foreign substances.

3.05. INSPECTION

- A. The TOTAL WALL applicator, a representative of the property owner's team, and a TOTAL WALL representative shall inspect the EIFS installation and prepare an inspection summary with a copy to TOTAL WALL.
- B. If an EIFS 3rd Party Inspector is used, a copy of the final report shall be submitted to TOTAL WALL.

END OF GUIDE SPECIFICATION

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