

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)
GUIDE SPECIFICATION (with Metric analogs)
FOR APPLICATION OVER
INSULATED CONCRETE FORMS (ICF)

01/05

PART I: GENERAL

I.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. inspection and preparation of Insulated Concrete Form (ICF) substrate;
 2. application of a TOTAL WALL Soft Coat BaseCoat and TOTAL WALL reinforcing mesh over the substrate;
 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. Metal Framing and Flashing, Division 5
 3. Wood Construction, Division 6
 4. Sheathing, Division 9
 5. Caulking/Sealants/Insulation/Moisture Barriers, 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 C297 Test Method for Tensile Strength of Flat Sandwich constructions in Flatwise Plane
 - UBC 26-9 (ISMA) Intermediate Scale Multistory Fire Test
 - 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
 - ASTM 1784 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

NFPA Standard Test Method 268 Radiant Heat Fire Test

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 (IBC)

International Residential Code (IRC)

D. Terms and Definitions

Class ICF (Polymer Based) System over ICF.

A class of EIFS where TOTAL WALL reinforcing mesh is embedded into TOTAL WALL Soft Coat base coat (average) 1/8" (3.2 mm) 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 are applied over the base coat.

1. ICF Substrate

A preformed rigid insulating foam plastic block that functions to reduce heat flow through a wall and to provide a surface for receiving the TOTAL WALL Soft Coat base coat and TOTAL WALL reinforcing mesh. Typically, Expanded Polystyrene (EPS) foam block will have an average foam density of 1.5 lb per cubic foot (24.03 g/liter) is used with outer EPS thickness from the concrete core that will not exceed 4" (101.6 mm). The ICF block must meet specific performance and safety specifications as outlined in the ICF manufacturer's specifications.

- 2. TOTAL WALL Soft Coat Base Coat
A material that is applied to the face of the insulation board and is used to embed the reinforcing mesh and functions as a weather barrier.
- 3. TOTAL WALL 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.
- 4. TOTAL WALL Finish Coat
A premixed, synthetic plaster material. It functions to provide a decorative color and texture coat and to provide additional weather resistance.
- 5. Accessories
Optional items such as corner beads and casing beads that are utilized in the assembly of the system. Flashing for window and door treatment, decks, roof kick out areas and dormers is utilized.
- 6. 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. All details shall conform to TOTAL WALL recommendations and shall be consistent with the project requirements.
 - I. General
 - a. At all exposed locations the ICF shall be completely encapsulated by the lamina.
 - b. The ICF shall be separated from the interior of the building by 1/2" (12.7 mm) gypsum wallboard or equivalent thermal barrier material which will limit the average temperature rise of the unexposed surface to not more than 250 F (119 C) after 15 minutes of fire exposure, when subjected to the ASTM E-119 time-temperature curve.
 - c. The minimum thickness of EPS shall be 1/4" (6 mm), the average maximum thickness shall be 4" (101.6 mm).
 - 1. Exception: minimum thickness of EPS over plastic ties does not apply.
 - 2. Minimum thickness of EPS used for trim, extensions or laminations shall 3/4" (19 mm).
 - d. The length and slope of inclined surfaces shall follow the guidelines listed below:
 - I. Minimum slope: 6" (152.4 mm) of rise in

- 12" (304.8 mm) of horizontal projection.
 - 2. Inclined surface shall not be used for areas defined as roofs by building codes.
 - 4. Use not meeting the above criteria shall be approved in writing by TOTAL WALL prior to installation.
- 2. ICF Substrate
 - a. Shall be engineered to withstand all applicable loads, including live, dead, positive and suction wind, seismic, etc. 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.
 - c. The substrate shall not have any planar irregularities of greater than 1/4" (6.35 mm) in 8 lineal feet (2.4384 M).
- 3. Expansion Joints
 - a. Continuous expansion joints shall be installed at the following locations:
 - 1. Where expansion joints occurring the substrate.
 - 2. Where building expansion joints occur.
 - 3. Where the system abuts other materials.
 - b. Expansion and contraction of the system & 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 protrusions, including doors and windows.
- 4. 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" (203.2 mm), or with Corner Mesh, or approved PVC accessory.
 - d. Openings shall be reinforced using a 9 1/2" (241.3 mm) wide by 12" (302.9 mm) long strip of Detail Mesh laid at a 45 degree angle to the opening corner.
 - e. Commercial and residential window openings shall be trimmed if necessary with EPS foam lamina to cover dissimilar adjoining materials and to facilitate construction of either a standard isolation joint or fillet bead of approved sealant and backer.

C. All areas requiring higher than standard impact resistance shall be detailed in the drawings and described in the contract documents.

D. The use of dark colors must be considered in relation to estimated wall surface temperatures as a function of local climate conditions.

I.03 QUALITY ASSURANCES

A. Contractor

The contractor shall have a minimum of two years experience in the wall construction trades, be certified by TOTAL WALL for application of PB Systems, demonstrate the ability to install the system based on projects similar complexity and design, and meet the approval of the General Contractor. 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 the project plans and specifications.

B. ICF manufacturer

The ICF Manufacturer shall be: Reward Wall, BuildBlock, Polysteel, ARXX, Keeva, Dow, Eco Block, Owens Corning, Amvic, or as approved in writing by Total Wall and as recognized by TOTAL WALL as capable of producing ICFs to meet the system requirements.

I.04 SUBMITTALS

A. Sample : The contractor shall prepare for the General Contractor samples of 1' by 1' (30 cm by 30 cm) of TOTAL WALL lamina over EPS board to exhibit the texture and color of the finish desired. The General Contractor 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, which has 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 ICF Manufacturer Systems documentation.

I.05 PRODUCT DELIVERY AND STORAGE

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

B. Storage:

I. Store all products off the ground, under cover and protected from dampness and sun light.

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.
3. All liquid products shall be stored at 40 F (4.4 C) or above and protected from freezing. Protect from exposure to direct sunlight during storage.

I.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 F (4.4 C) and rising. A minimum temperature of 40 F (4.4 C) should be maintained 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.

I.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 dip 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 requirements, contract with a certified 3rd party EIFS Inspector prior to any TOTAL WALL EIFS installation. The inspector shall be EDI (Exterior Design Institute) certified or other applicable certifying agency as approved by TOTAL WALL, the General Contractor and the local code official, if applicable. The inspector will make a minimum of three on-site inspections, which will include the following examinations as applicable:
 3. material storage and environmental application conditions,
 4. trim EPS lamina or trim accessory installation

5. ICF substrate - type, condition
6. ICF preparation- washing off UV degradation,
7. ICF preparation - planar adjustments
8. ICF preparation - area rasping as required, proper filling of gaps between blocks, proper block joint alignment
9. trims and architectural enhancements-configuration and installation (if required),
10. base coat - type, labeling, mixing, application,
11. mesh - type, labeling, backwrapping, corner reinforcement, general installation,
12. finish - type, labeling, mixing, application,
13. sealant and backer rod - type, labeling, joint dimensions, joint preparation, joint placement, sealant application.

The inspector shall provide a minimum of three interim text reports and one final report which will include photographs. The inspected items shall be compared with job documents and TOTAL WALL specifications and reported accordingly. Report copies shall be issued to the GC within three days of each inspection phase. Report copies will be made available to ICF Manufacturer and TOTAL WALL. The payment of monies for the inspection process will be allocated prior to the bidding process.

1.08 SYSTEM WARRANTY

- A. A TOTAL WALL Warranty application form shall be completed for prior to the EIFS installation.
- B. Upon completion of the lamina installation in accordance with specifications and payment of monies due TOTAL WALL, TOTAL WALL shall issue a single source 10-year materials and labor performance WARRANTY. Warranty applications forms and inspection reports and check lists shall be sent to TOTAL WALL prior to issuance of a Warranty.

PART 2: PRODUCTS

2.01 MANUFACTURERS

- A. All materials related to EIFS shall be obtained from TOTAL WALL, 390 Viking Circle, Rio, WI [888-702-9915] or a TOTAL WALL approved supplier.
- B. The ICF substrate shall be supplied by an approved ICF Manufacturer

2.02 EXTERIOR INSULATION SYSTEM COMPONENTS

- A. Any Trim Accessories shall be UV resistant PVC as manufactured by either Vinyl Corporation (800-648-4695) or Plastic Components (800-327-7077). The trim accessories may consist of the following:
 1. window trim

- 2. Casing Bead or corner bead
- 3. Sloped Sill Wedge
- B. Rigid insulation board use for lamination, trim, or repairs shall be 2' x 4' (0.6096M by 1.2192 M) Grade I EPS, meeting ASTM C578 performance standards, an average density of 1lb per cubic foot (16.2 g/L) (min), cured for 6 weeks at 68 F (20 C) or equivalent accelerated conditions, labeled with TOTAL WALL and code markings, and with a minimum thickness of 3/4" (19.05 mm) thickness and a maximum thickness of 4" (101.6 mm) as specified by drawings.
- C. Adhesive - - shall be TOTAL WALL Blue Mastic: a ready-to-use water based acrylic adhesive designed to adhere polystyrene to various substrates, or EnerFoam Urethane Foam.
- D. Base Coat - - shall be TOTAL WALL RT2000, a dry polymer modified Portland Cement based mixture that is mixed with water at the job site; or EZ Base NCB (also known as Tuff II), a premixed ready-to-use base coat. The selected mixture is used to embed the TOTAL WALL reinforcing fabric to the face of the polystyrene block.
- E. Reinforcing Mesh - A plastic coated fiberglass reinforcing fabric as required and supplied by TOTAL WALL:
 - 1. 4 oz - Standard, 25-35 in-lbs (2.8-4.0 Newton-M) impact
 - 2. 6 oz- Standard Plus, 35-40 in-lbs (4.0-4.5 Newton-M) impact
 - 3. 11 oz-Intermediate, 75-90 in-lbs (8.5-10.1 Newton-M) impact
 - 4. 15 oz - High, 180-220 in-lbs (20-25 Newton-M) impact
 - 5. 20 oz - Ultra High, 230-240 in-lbs (26-27 Newton-M) impact
 - 6. The High and Ultra High Meshes require a second layer of Standard mesh and Base Coat.
- F. Water - Shall be clear, potable and free of foreign matter.
- G. Sealant Systems:
 - I. 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"
 - 2. Prime: Use manufacturer's recommended Primer.
 - 3. Backer Rod: Dow "Ethafoam"
 - 4. Bond Breakers: 3M #480 or Valley Industrial Products #90
 - c. Dow Corporation:
 - 1. Dow 790 series sealants (790, 791, 795)

- 2. Prime: Use manufacturer's recommended Primer.
 - 3. Backer Rod: Dow "Ethafoam"
 - d. Pecora Corporation:
 - 1. Pecora 890 sealant
 - 2. Prime: Use manufacturer's recommended Primer.
 - 3. Backer Rod: Dow "Ethafoam"
 - e. TOTAL WALL:
 - 1. TOTAL WALL Mastic #11 sealant
 - 2. Prime: none required
 - 3. Backer Rod: Dow "Ethafoam"
- 2. System materials shall be dried prior to Sealant Installation.
 - 3. Color shall be selected by the Architect or Owner.
 - 4. Alternate Sealants must be reviewed and approved by TOTAL WALL in writing before use.

H. Finish - - TOTAL WALL ready-mixed, all acrylic, textured finish coat.
Available in a selection of colors and textures.

- 1 Swirl Fine
- 2 Swirl Coarse
- 3 Swirl Ultra Coarse
- 4 ShotBlast Fine
- 5 ShotBlast Medium
- 6 ShotBlast Coarse
- 7 Sand Pebble
- 8 Sand Finish
- 9 FreeStyle
- 10 Gemstone
- 11 TOTAL WALL EZ Base NCB (TUFF II) may also be used as a Finish Coat when the same product is used as the Base Coat. Two hours minimum is recommended between the Base Coat pass and the Finish Coat layer for this product only.

2.03 MIXING AND PREPARATION

- A. TOTAL WALL T-2000 Dry Base Coat (or Journeyman Series T-2000 Base Coat)
 - 1. Obtain a clean container for mixing. Do not use contaminated or dirty containers.
 - 2. Add 5 quarts (4.7 Liters) of fresh, potable water to the container.
 - 3. Open a new 50 lb (22.7 Kg) bag of TOTAL WALL EIFS Dry Base Coat.

4. Using a low speed mechanical mixer, begin stirring while adding the TOTAL WALL T-2000 Dry Base Coat. After the TOTAL WALL T-2000 Dry Base Coat is added, continue mixing an additional two minutes being sure to scrape the sides and bottom of the mixing container. Add up to 1 quart (.95 Liters) of additional water to adjust the mixture to a creamy trowel-grade consistency.
5. Allow the mixture to stand for 5 minutes and mix again on low speed for an additional minute. Clean water may be added to enhance workability.
6. Begin using product immediately. Product may be re-tempered two times within a maximum two hour time period of use. Beyond two-hour pot life, discard product.

B. TOTAL WALL EZ Base NCB (TUFF II)

1. The TOTAL WALL EZ Base NCB shall be stirred for 1 minute with a low speed mixer until a uniform workable consistency is obtained.
2. A small amount of water may be added to adjust workability. Maximum water addition not to exceed 6 oz. (0.177 Liters) per 5 gal (18.92 Liter) 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 EZ Base NCB container shall be kept closed when not in use. Pot life of product in closed pail is 48 hours, then product must be remixed. Shelf life of product in closed pails is 18 months.
5. The mixing tool shall be cleaned immediately after use.

C. TOTAL WALL Synthetic 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 not to exceed 12 oz. (0.354 Liter) per 5 gal (18.92 Liter) 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 container shall be kept closed when not in use. Shelf life of product in closed pails is 18 months.
5. The mixing tool shall be cleaned immediately after use.

2.04 PERFORMANCE REQUIREMENTS

The TOTAL WALL system and its components shall meet the following performance requirements when applied over the approved ICF System:

- A) ASTM E84 Surface Burning FSI = 10, SDI = 35
- B) ASTM E108 mod. Full Scale Fire Test Pass (No Flame spread)
- C) MIL STD 810D Mildew Resistance (Method 508.3) 28 days - no growth
- D) ASTM E695 Full Scale Impact Loading No Damage
- E) ASTM D968 Sand Abrasion 500 liters 260 L/ml, No Deleterious Effects
- F) ASTM D2247 Water Resistance No Deleterious Effects
- G) ASTM B117 Salt Spray (300 hours) No Deleterious Effects
- H) ASTM E96 Water Vapor Transmission approx. 1.5 perms
- I) ASTM C67 mod. Saturated Freeze/Thaw (50 cycles) No Deleterious Effects
- J) ASTM C297 Tensile Adhesion No failure in base or finish
- K) ASTM E330 modified By E72-80 meets or exceeds
Negative and Positive wind Load (Pos 0.079, Neg 0.079 Kg/cm²)
- L) ASTM E331 Wind Driven Rain No Penetration
(5 gal/sq.ft./hour rain fall plus 65 mph wind)
- M) ASTM D2797 Impact resistance 2.5 Newton-Meters
- N) ASTM G23 Accelerated Weathering (2000 hrs) No Deleterious Effects
- O) ASTM C209 Tensile Strength 26 PSI (1.846 Kg/cm²)
- P) ASTM C203 Flexural Strength 1.41cm deflection at 33.4 Kg load
- Q) Radiant Heat Fire Test NFPA 268 Pass
- R) ISMA Fire Test (UBC-26-9) Pass

PART 3 EXECUTION

3.01 INSTALLATION

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

3.02 ICF Manufacturer Systems ICF Substrate

A. Requirements of Substrate

1. Any planar deflections or irregularities in the ICF substrate shall not exceed 1/4" in eight lineal feet. Deflections exceeding this value shall be corrected by ICF Manufacturer in accordance with their specifications or procedures.
2. Any UV degradation of the EPS shall be removed by washing or rasping. Washing the EPS shall be done with a controlled pressure fan spray of a water solution of Sodium Metaborate and surfactant as recommended by TOTAL WALL.
3. Any small areas of concrete seepages or spatters shall be removed by rasping or other suitable mechanical means.
4. Any gaps in block joints of 1/8" or greater shall be filled with EnerFoam and rasped level after drying.
5. Any block joint misalignments of exceeding 1/16" shall be rasped to a tolerance of 1/16" or less. Rasping shall be performed in those areas in a manner that will not tend to produce picture framing of the ICF block.
6. Any localized deflections, protrusions or dents exceeding 1/16" shall be repaired using as combination of EnerFoam, 1 lb density EPS foam and rasping as required.
7. Items 2 - 6 above are the responsibility of the EIFS applicator.

B. Windows and other penetrations

1. At window jambs, sills and heads, the EPS abutment shall be constructed to receive proper wrapping of reinforcing mesh and base coat so as to allow for a proper 1/2" sealant joint or alternatively a fillet bead joint. The EPS abutment may require trimming of existing EPS or lamination of additional EPS using approved adhesive or use of PVC accessory. In addition, the use of trim bands or reveals with properly beveled edges is permitted to aid in design esthetics and construction of proper sealant joints.
2. At window heads, a 3/8" groove-cut drip edge should be constructed into the EPS if possible. Determination of this shall be made by the applicator and TOTAL WALL.
3. Customized details for specific penetrations and terminations shall be provided by TOTAL WALL as deemed necessary by the applicator, the General Contractor, ICF Manufacturer and TOTAL WALL.

3.03 INSTALLATION OF Total Wall Lamina

- A. Mixing - - All materials requiring preparation shall be labeled accordingly; the contractor shall follow all instructions.
- B. System Terminations - At all system terminations, the system shall be terminated with the proper wrapping of reinforcing mesh and basecoat or PVC accessory.
- C. Installation of Rigid EPS Insulation for repair or trim or extension.
 - 1. Grade I EPS
 - a. Grade I EPS shall be applied to the substrate surface using EnerFoam or TOTAL WALL #11.
 - b. Grade I EPS pieces shall be precut to fit openings, corners or projections prior to application of the backwrapping and approved adhesive.
 - 2. Grooves which may be required as 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 remaining thickness of the Grade I EPS at any point in the routed groove or feature shall not be less than 1/4" (6 mm).
 - 3. Foam shapes of Grade I EPS, if used, shall be applied directly to the substrate or surface of the Grade I EPS.
 - 4. 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 RT2000 Soft Coat Base Coat or EZ Base NCB
 - 1. Surface of the Grade I EPS shall be inspected and repaired as necessary in accordance with Section 3.02 A.
 - 2. Using a steel trowel, apply the TOTAL WALL EIFS Soft Coat Base Coat to the surface of the ICF to a minimum thickness of approximately 1/16" (1.5875 mm).
 - 3. 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 and a 1/8" (3.17 mm) average thickness is achieved. This may require two passes with the TOTAL WALL Soft Coat Base Coat in order to achieve the proper thickness. A delay in time of up to 36 hours between passes of base coat is permissible.
 - 4. The Reinforcing Fabric pieces shall be lapped a minimum of 2 1/2" (63.5 mm) on all sides.
 - 5. A period of 18 hours shall lapse to allow the TOTAL WALL EIFS Soft Coat Base Coat to cure before the TOTAL WALL

finish coat is applied. The base coat shall be protected from damage and weather while curing.

(Exception: TOTAL WALL EZ BASE NCB (TUFF II) requires a 2 hour cure time if TOTAL WALL EZ BASE NCB (TUFF II) is also used as the finish coat.

6. 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 if required)
1. Using a steel trowel, the TOTAL WALL EIFS Soft Coat Base Coat shall be applied to the surface of the Reward ICF to a uniform thickness of 3/32" (2.3813 mm).
 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 is fully embedded. The pattern of the High Impact 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 lapse to allow the first layer of High Impact base coat to form a positive bond, and shall be protected from damage and weather while curing.
 5. The surface of the first layer shall be examined after curing for projections, loose strands of High Impact mesh and corrected to produce a flat surface.
 6. A second layer consisting of TOTAL WALL EIFS Soft Coat Base Coat and Standard reinforcing Mesh shall be applied over the High Impact layer per Section 3.03 D 2-5.
 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
- I. The TOTAL WALL Synthetic 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.
 8. Do not wrap Finish into expansion joints or isolation joints. The Primer and Sealant should be bonded directly to the Base Coat in the joint.
- G. Sealant
1. Insure that proper backer rod, Primer and Sealant is installed at all required locations, such as expansion joints and isolation joints, in accordance with TOTAL WALL details and the sealant manufacturer specifications.
 2. Sealant and backer rod shall be of the type and brand as specified in this document or as approved in writing by TOTAL WALL for this application.
 3. Primer shall be used when specified by the sealant manufacturer.
 4. Sealant shall be bonded to cured base coat when possible and not to finish coat. Exceptions to this shall be approved by TOTAL WALL in writing.
 5. Sealant joint preparation, installation of backer rod and sealant installation shall be performed by an experienced applicator.
- 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 materials have been applied shall be left free of debris and foreign substances.
- 3.05 INSPECTION
- A. The applicator, a representative of the property owner's team, and a TOTAL WALL representative shall inspect the ICF lamina 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.