

**COREV AMERICA
MANUFACTURER'S SPECIFICATION**

PRECOR-SB™
EXTERIOR THERMAL WALL SYSTEM

**WITH WATER-RESISTIVE SECONDARY BARRIER
SECTION 07240 (07241)**





PART 1 GENERAL

1.1 SYSTEM DESCRIPTION

- A. Exterior wall cladding, defined as an Exterior Thermal Wall System, with a water-resistive secondary barrier. The system consists of an acrylic-based water-resistive secondary barrier coating applied to the substrate, adhesive flashing membrane, adhesive, rigid expanded polystyrene board, basecoat, acrylic-coated glass fiber reinforcing mesh, and an acrylic finish coating.
- B. The PRECOR-SB System is an insulating cladding system that is protective and decorative. The application of IMPERCOREV™, COREVNET-DTA™ and FLASHTAPE™ as described herein functions as the secondary weather and air barrier over approved substrates (COREVNET-DTA is not used with concrete or masonry substrates.)
 - 1. The secondary weather and air barrier protects the sheathing from moisture during the installation of the wall system and in the event of a breach in the wall system itself thereafter. It is not intended to correct or compensate for faulty workmanship or other sub-standard or defective construction elements, such as missing or improperly installed or maintained flashings and sealants, or windows that allow water infiltration into the wall cavity.
 - 2. The secondary weather and air barrier will affect vapor transmission ratings within the wall assembly. The design professional must properly coordinate materials and mechanical requirements to develop a building envelope assembly appropriate to geographical and climate conditions, such that condensation will not form within the wall assembly.

1.2 RELATED SECTIONS

- A. Sections directly related to the building envelope, such as:

1. Cast-in-place concrete	Section 03300
2. Unit masonry	Section 04200
3. Cold formed metal framing	Section 05400
4. Sheathing	Section 06115
5. Vapor retarders	Section 07190
6. Air barriers	Section 07195
7. Membrane roofing	Section 07500
8. Sheet metal flashing and trim	Section 07620
9. Sealants and caulking	Section 07920
10. Exterior entrance doors	Section 08400
11. Exterior windows	Section 08500
12. Gypsum board systems	Section 09260

1.3 DESIGN REQUIREMENTS

A. Substrate systems should be designed to withstand applicable loads, including live, dead, positive and negative wind, seismic, etc. Bond strength, fastener strength and connection strength shall be analyzed and engineered, and appropriate factors of safety shall be used. Maximum deflection of substrate systems shall not exceed L/240th of the span.

- B. Dimensional tolerances:

- 1. Structural steel framing used to support the wall system shall meet the requirements of the American Institute of Steel Construction.
- 2. Brick, masonry and concrete substrates and exterior grade sheathing shall be flat within ¼" depth within any 4' radius.
- 3. Wood framing shall be as specified by architectural drawings. Warps or bows in the structures greater than ½" in any 8' length will not be acceptable.

- C. Light Gauge Steel Framing

- 1. Thickness shall be determined by loads using accepted engineering practices with minimum thickness being 20 gauge at maximum 16" stud spacing.
- 2. Section properties of members shall meet the latest AISI standards.

3. All stud, track, bridging and bracing connections shall be electric fusion welded. Field erected framing shall be screw fastened.
4. Framing will include stud, track, bridging and bracing and be galvanized or painted with rust-resistant primer.
5. When light gauge steel framing is continued past the floorline, the stud cavity flue shall be continuously fire stopped at floorline. The space between the edge of the floor and slab shall be sealed with safining material as per building code requirements.

D. Acceptable substrates:

1. Exterior grade gypsum sheathing meeting ASTM C79 requirements for water-resistant core at the time of installation of the PRECOR-SB System.
2. Inorganic fiberglass mat faced water-resistant gypsum sheathing meeting ASTM C1177.
3. Sound unpainted unglazed concrete.
4. Sound unpainted unglazed unit masonry.
5. Cement fiberboard.
6. APA Exterior or Exposure 1 Rated Plywood Grade C-D or better, nominal ½" minimum 4-ply.
7. Application to substrates other than those listed above shall be approved in writing by Corev America.
8. Sheathing shall be protected at all times prior to installation of the wall system to ensure that damage to the sheathing does not occur and that the bond between the gypsum and its facing has not been compromised.

E. The minimum slope of inclined surfaces shall be not less than 6 inches (150 mm) of rise in 12 inches (300 mm) of horizontal projection. Inclined areas defined as roof shall not use the PRECOR-SB system.

F. Expansion joints: The designer is responsible for the design and location of expansion joints. They are required at a minimum at the following locations:

1. Where expansion joints are specified by the Architect.
2. Where building expansion joints occur.
3. Where expansion joints occur in the substrate.
4. Where prefabricated panels abut one another.
5. Where the wall system abuts dissimilar materials.
6. Where a change in the substrate type occurs, unless specifically approved in writing by Corev America.
7. Where significant structural movement occurs or can be expected to occur, such as but not limited to:
 - a. Changes in rooflines.
 - b. Changes in building shape and structural system.

G. Terminations

1. At penetrations through the substrate, a minimum ½" will be left between the wall system and that element, in order to accommodate the installation of backer rod and sealant. The single exception is in a sill condition where sill flashing is installed and turns down onto the vertical face of the PRECOR-SB System. Other exceptions shall be only as approved by the manufacturer.
2. Windows must be designed with the proper sill pan, end dams, or other design elements to ensure that any water penetrating the window assembly is diverted to the exterior of the building.
3. The wall system shall terminate at least 8" above grade.
4. At rooflines, balconies and other terminations, adequate flashing, including diverter flashing, shall be designed and installed to prevent water infiltration into the wall assembly.

H. Sealants

1. Sealant shall be one of the products listed below, and must be installed per the sealant manufacturer's specifications, using accessories and components approved by that manufacturer. Backer rods shall be closed cell.
 - a. Dow Corning 790, 791 or 795
 - b. Pecora 890
 - c. GE SilPruf SCS 2000



2. The use of other sealants is subject to compatibility testing by the sealant manufacturer and written approval from Corev America.

I. Details: Follow Corev America's latest published information for standard detail treatments.

1.4 PERFORMANCE REQUIREMENTS

A. The PRECOR-SB System shall have been tested as follows:

EXTENSIVE FIRE TESTING

Test	Method	Description	Result
Full Scale Multi Story Fire Assembly over 4" EPS	UBC 26-4 (previously UBC 17-6)	Severe fire exposure of a two story structure with PRECOR	No flame propagation through core or exterior face of system
Surface Burning Characteristics (assembly over 4" EPS)	ASTME 84 (UL 723, UBC 42-1)	Smoke development Flame Spread Index	165 25
Surface Burning Characteristics (FINISH COATNIGS ONLY)	ASTME 84 (UL 723, UBC 42-1)	Smoke Development Flame Spread Index Fuel Contribution	5 5 0
Large Scale Vertical Fire Spread Test for EIFS (4" EPS)	Modified ASTME 108	Fire simulation of EIFS assembly on vertical wall	No significant vertical or horizontal flame spread. Limited smoke production
Fire Performance Evaluation of 1 and 2 hour wall assembly over 1" EPS	ASTME 119-95	System over gypsum sheathing and steel studs	Wall assembly received 1 hour and 2 hour fire resistance rating
Burning Characteristics (FINISH COATINGS ONLY)	Military Spec. MIL-M1014G	Bellstein Test Smoke Development Flame Spread Ash	Negative Light 5" Light
Potentially Hazardous Gas Emissions Upon Burning (FINISH COATING ONLY)	Military Spec. MIL-M-14G Results expressed in PPM.	Chlorine Hydrogen Chloride Phosgene Ammonia Carbon Monoxide Cyanides as HCN Sulfur Dioxide Aldehydes as HCHO Carbon Dioxide Nitrogen Oxides	0 0 0 0 140 0 0 2 9125 28
Ignitibility Using Radiant Heat Energy Source (3/4" and 4" EPS)	NFPA 268	Radiant heat ignition resistance for exterior wall	No ignition

STRUCTURAL TESTING

Test	Method	Description	Result
Wind Load Resistance	ASTM E 330	¾" EPS over 20g. 16" O.C. studs; 5/8" gypsum sheathing	Tested to negative 120 psf positive and negative loads without failure
	ASTM D 2794	15 lbs. cup 2" dia. / 2.5" raduis nose	Mean Failure Energy: 56.6 ft./lbs.
Impact Resistance	EIMA 101.86	EIFS system with: Standard mesh Medium mesh High impact mesh Ultra -high impact mesh	Pass Pass Pass Pass
Wall Assembly Impact Resistance	ASTM E 695 (Formerly E 72)	1" to 4" EPS over various assembly configurations	Pass with no damage to finish
Hardness	Rockwell R Scale	Corevsand Decorplast	25.5 24.2
Bond Strength Test (ICBO Freeze/Thaw)	ASTM D 297	System over 1" EPS ¼" fiberboard substrate	No evidence of cracking or other damage

RESISTANCE TO ELEMENTS

Test	Method	Description	Result
Accelerated Weathering	ASTM G 23	2000 hours Carbon Arc Method	No deterioration or color change
Salt Fog Resistance	ASTM B 117	500 hours of 5% salt fog	No change
Humidity Resistance	ASTM D 1735	500 hours of 10% water fog	No change
Wind Driven Rain	Fed. Spec. TT-C-555B	24-hour exposure	0.35% weight gain No water penetration
Freeze Thaw Stability	ASTM C 67	Repeated cycles exposing EIFS system sections to severe soaking / freeze / thaw	No delaminating, cracking or other deterioration
Abrasion Resistance	ICBO AC24, Sec 6.5 ASTM D 969 (1000Lts.)	Resistance to wear	Pass No perceptible change



RESISTANCE TO ELEMENTS (Continued)

Test	Method	Description	Result
Chemical Resistance	ASTM D 1308	Hydrochloric acid 10% Ammonia hydroxide Turpentine fuel oil Fuel Oil #2	No change No change Moderate softening Slight softening
Mildew Resistance	Military STD.810B	Method 508	No fungus growth
Water Penetration	ASTM E 331	Resistance to water	No water penetration
Water Resistance	ASTM D 2247	Resistance to water	No water penetration
Water Vapor Transmission	ASTM E 96	Permeance through 1" EPS assembly at 75 F / 50% R.H.	1.036 Grains/Hr.-Ft.2 2.368 Perms

IMPERCOREV WATER RESISTIVE BARRIER TESTING

The PRECOR-SB System meets or exceeds the requirements under ICC ES Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing (AC212).

Test	Method	Description	Result
Freeze Thaw	AC212	Dens Glass Gold, CMU and Plywood	Passed 10 cycles
Water Vapor Transmission	ASTM E96	Measuring water vapor transmission and permeance	Meets requirements for Grade D water-resistive barriers
Transverse Load	ASTM E1233-97	10 positive cycles of loading	No signs of cracking or tearing
Racking Shear	ASTM E72-02	Load applied in 100 lb. increments	No signs of cracking or tearing
Restrained Environmental Cycling	AC212	Water spray 24 hours Radiant heat 24 hours	No signs of cracking or tearing
Water Penetration	ASTM E331	2.86 psf for 15 minutes penetration	No visible water
Ultraviolet Light	AC212	21 UV cycles	No signs of failure
Accelerated Aging	AC212	5 specimens; 25 accelerated aging cycles	No signs of failure
Hydrostatic Pressure	AATCC127	Dens Glass Gold, CMU and Plywood	Passed; no failure after 5 hours
Tensile Bond Strength	ASTM C297	Dens Glass Gold, CMU and Plywood	Met minimum 15 psi tensile bond strength requirements
Water Resistance	ASTM D2247	14 day exposure	No cracking, crazing, blistering, erosion or other deleterious effects observed
Water Vapor Transmission	ASTM E96-05	Water Method	Meets requirements for Grade C water-resistive barriers

IMPERCOREV WATER RESISTIVE BARRIER TESTING (Continued)

Test	Method	Description	Result
Cylindrical Mandrel Bend	ASTM D522	Method B	Pass; no cracking visible to the unaided eye
Tensile Properties*	ASTM D2370	Average tensile strength (psi)	105.97
Tensile strength and Elongation*	ASTM D412	Average elongation	0.406
		Average tensile stress	476.912
Rate of Air Leakage*	ASWTM E283	2.86 psf for 15 minutes	No visible water Penetration

INSULATION BOARD TESTING

The Type 1 insulation board used by Corev America meets or exceeds requirements of ASTM C 578-92. Testing relates to boards of 1.0 lb./cu. ft. density.

Property	Method	Description	Result
Thermal Conductivity	ASTM C 177, C 518	K Factor	0.23 @ 25°F 0.24 @ 40°F 0.26 @ 75°F
Thermal Resistance	ASTM C 177, C 518	R value for 1" board	4.35 @ 25°F 4.17 @ 40°F 3.85 @ 75°F
Strength Properties			
Compressive	ASTM C 165/1621	10% deformation (psi)	10.0 - 14.0
Flexural	ASTM C 203	Values in psi	25.0 - 30.0
Tensile	ASTM D 1623	Values in psi	16.0 - 20.0
Shear	ASTM D 723	Values in psi	18.0 - 22.0
Shear Modulus		Values in psi	230 - 320
Modulus of Elasticity		Values in psi	180 - 220
WVT	ASTM E 96	Values in perms-inches	2.0 - 5.0
Water Absorption	ASTM C 272	Maximum volume in %	4.0
Dimensional Stability	ASTM D 2126	Change in dimension expressed in maximum %	2.0
Coefficient of Thermal Expansion	ASTM D 696	in/(in.)(F)	0.000035
Surface Burning	ASTM E 84 (UBC 42-1)	Flame spread Smoke development	Less than 25 Less than 450

1.5 SUBMITTALS

A. Samples:

1. Two 1' X 1' samples of the PRECOR-SB system, representative of the proper finish coating, texture and color, shall be prepared using the same tool and technique as required by the job.
2. One sample shall remain at the jobsite for comparison of texture and color.

B. Shop Drawings of details not provided by the Architect shall be submitted showing the PRECOR-SB system, connections, expansion joints, wall layout and other details necessary for clarity.

C. Reports and Certificates:

1. Upon request from the Architect, selected test results or copies of test reports shall be submitted.
2. A trained applicator shall submit his current Corev America certification to the Architect prior to the application of the product.

D. Maintenance:

1. Upon request by the client, a maintenance kit shall be provided. This kit will include one 2' X 4' EPS board, 8 ft² of COREVNET-ST, one five-gallon bucket of UNIBASE™ and one five-gallon bucket of the appropriate finish coating(s).
2. The kit shall be delivered to the location where the PRECOR-SB system is being applied.

1.6 QUALITY ASSURANCE

A. Installation Company:

1. Shall be a Company specializing in the Work of this section and approved by Corev America.
2. Shall have a minimum five years experience in the installation of PRECOR-SB or similar wall systems, with experience with projects of the scope and complexity of the specified project.
3. Shall employ installation personnel qualified in the trowel trades and experienced in wall system installation.

B. Insulation Board Manufacturer:

1. Shall be approved in writing by Corev America and be competent in the manufacture of expanded polystyrene insulation board.
2. Shall manufacture the insulation board according to Corev America's specifications.

C. Sealant Contractor:

1. The General Contractor or Owner shall ensure that the sealant contractor is qualified to perform the sealant work in accordance with the sealant manufacturer's specifications.
2. The applicator shall be properly trained so that a competent installation of the specified sealant system is achieved.

1.7 MOCK-UP

A. Construct jobsite mock-up measuring minimum six feet (6') square, using jobsite materials, to include:

1. Range of color and finish textures, joint configurations and representative EPS special details.
2. Method of attachment to substrate.
3. Typical terminations, windows and other wall penetrations.
4. Flashings, copings and sealants installed.
5. Once accepted, the mock-up shall be the standard of comparison for the remainder of the Work.
6. Install mock-up as directed by Architect, and remove from jobsite after completion of the Project.

- B. The mock-up shall demonstrate adequate design and coordination of construction elements to ensure a water-tight wall assembly.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the jobsite in Corev America's original unopened packaging with labels intact.
- B. Protect materials from damage by storing in a cool, dry space, protected from direct sun and freezing temperatures. Buckets shall not be stacked more than three containers high.

1.9 JOB CONDITIONS / ENVIRONMENTAL REQUIREMENTS

- A. Materials shall not be applied to a substrate with a temperature lower than 40° F or higher than 100° F.
- B. The ambient air temperature will be 40° F and rising at the time of installation and remain so for twenty-four (24) hours thereafter.
- C. For wall system installation in ambient temperatures lower than 40° F, enclose the area and apply supplementary heat during installation and for a minimum of twenty-four (24) hours after the installation of materials is complete.
- D. Do not install wall system materials during rain or other inclement weather, and after such weather, wait until surfaces are completely dry before resuming work.
- E. Adjacent areas and materials shall be protected to preclude damage during materials installation.
- F. The wall system assembly shall be protected from weather immediately after installation through use of flashing. Plastic should be used to cover areas that may be exposed to moisture prior to drying.
- G. Proper scheduling of the installation will be coordinated with the General Contractor and the job will be staffed to maintain the schedule established.
- H. The General Contractor shall provide access to electric power and clean water where the wall system is to be installed.

1.10 WARRANTY

Corev America will provide a written 10-year limited warranty against defective materials. Corev America shall make no other warranties, expressed or implied. Corev America does not warrant workmanship associated with the installation of the wall system.

1.11 DESIGN RESPONSIBILITY

The specifier and the purchaser are responsible to determine whether a product is suitable for its intended use. Corev America's specifications, application details, and product data sheets are intended only to guide the design process; the designer shall be responsible for the proper coordination and integration of the wall system in the building construction documents. Corev America is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings, or the like, whether based upon the information prepared by Corev America or otherwise.

PART 2 MATERIALS

- A. IMPERCOREV™ acrylic polymer-based flexible membrane: An element of the secondary weather and air barrier; applied directly to the face of sheathing.
- B. UNIBASE™ acrylic polymer cement modifier: An element of the adhesive mixture and the basecoat mixture.
 - 1. UNIBASE Adhesive Mixture: A combination of Corev UNIBASE acrylic polymer cement modifier and Portland cement, mixed at the jobsite. Used to affix expanded polystyrene (EPS) insulation board to the substrate, which has been prepared with IMPERCOREV.

2. UNIBASE Basecoat mixture: A combination of UNIBASE acrylic polymer cement modifier and Portland cement, mixed at the jobsite. Used as the matrix for the COREVNET reinforcing mesh in the UNIBASE lamina.

C. INSULATION BOARD: A nominal 1.0lb./cubic foot expanded polystyrene (EPS) insulation board complying with ASTM C578 Type 1 requirements and EIMA Guideline Specification for Expanded Polystyrene (EPS) Insulation Board. Such insulation board shall be produced for Corev America by manufacturers approved by Corev America. Minimum thickness of EPS for the PRECOR-SB system shall be ¾" after all rasping is complete. Maximum thickness of EPS shall be 4".

D. REINFORCEMENT MESHES

1. COREVNET-DTA™ Mesh Tape: A Corev-supplied treated glass-fiber reinforcing mesh with pressure-sensitive adhesive. An element of the secondary water-resistive barrier; used to tape sheathing joints. 2.0 oz./SY
2. COREVNET-DT™ Reinforcing Mesh (Detail): A Corev-supplied treated glass-fiber reinforcing mesh in the UNIBASE lamina used in detailed work and for backwrap at all system terminations to strengthen the surface of the EPS insulation board. 2.0 oz./SY
3. COREVNET-ST™ Reinforcing Mesh (Standard): A Corev-supplied treated glass-fiber reinforcing mesh in the UNIBASE lamina used to strengthen the surface of the EPS insulation board. 4.4 oz./SY
4. COREVNET-RF™ Reinforcing Mesh (Reinforced): A Corev-supplied treated glass-fiber reinforcing mesh in the UNIBASE lamina used in high-traffic areas to strengthen the surface of the EPS insulation board. 10.6 oz./SY
5. COREVNET-HD™ Reinforcing Mesh (Heavy Duty): A Corev-supplied treated glass-fiber reinforcing mesh in the UNIBASE lamina used in high-traffic areas to strengthen the surface of the EPS insulation board. 14.0 oz./SY
6. COREVNET-SHD™ Reinforcing Mesh (Super Heavy Duty): A Corev-supplied treated glass-fiber reinforcing mesh in the UNIBASE lamina used in high-traffic areas to strengthen the surface of the EPS insulation board. 20.0 oz./SY
7. COREV-CORNER™: A Corev-supplied treated glass-fiber reinforcing mesh to add increased impact resistance to corners. 7.0 oz./SY

E. FINISH COAT MATERIALS: Factory-mixed, acrylic polymer based finish coatings containing integral color and available in various textures.

F. PORTLAND CEMENT: ASTM C 150 Type I or II Portland cement, gray color, with fine powder consistency and free of lumps.

G. WATER: Clean and clear, free of foreign matter, and potable.

H. FLASHTAPE™: Self-adhesive waterproof flashing membrane: An element of the secondary weather and air barrier. Acts as a bridge between the sheathing face and framing members or other structural materials.

PART 3 EXECUTION

3.1 EXAMINATION

A. Prior to installation of the wall system the substrate shall be examined by a Corev America approved installer or representative to ensure the following:

1. The substrate is appropriate for use with the PRECOR-SB System.
2. The substrate is as specified in the construction plans and is sound, tight, and otherwise ready for the installation.
3. The surface of the substrate is free of foreign materials such as paint, wax, glazing, moisture, dust, dirt or oil.
4. The dimensional correctness of the substrate is as specified in this document.
5. Any discrepancies shall be immediately brought to the attention of the General Contractor and Architect and Work shall not proceed until unsatisfactory conditions have been rectified.

3.2 INSTALLATION

A. Install Corev America's PRECOR-SB System per written instructions.

B. CORVENET-DTA

1. Use only on sheathing. Concrete and masonry substrates do not require use of COREVNET-DTA.
2. Apply along all sheathing joints, at all inside and outside corners, and at terminations that will not be covered by FLASHTAPE.

C. IMPERCOREV

1. Using a 3/4" foam roller, apply an even layer of IMPERCOREV over COREVNET-DTA, covering sheathing joints and corners (if applying over a sheathed substrate). Ensure that COREVNET-DTA is fully embedded in the IMPERCOREV, that no mesh color is visible, and that all voids in joints are filled.
2. Allow the IMPERCOREV applied over the joints to dry to the touch before proceeding.
3. Use a 3/4" foam roller or spray equipment to apply a minimum 15 mil wet film thickness (10 mil dry film thickness) of IMPERCOREV over the entire approved substrate.
4. Absorption and texture characteristics of substrates vary, and a second coating of IMPERCOREV may be necessary in order to achieve the required dry film thickness or to completely fill voids in joints.

D. FLASHTAPE

1. Apply FLASHTAPE to provide continuity of the water-resistive SB barrier between the sheathing substrate and the face of framing edges and all other dissimilar materials. This applies to parapet tops, expansion joints, windows, doors, and all other terminations and openings. FLASHTAPE may be applied to vertical and horizontal substrates including gypsum sheathing (including DensGlass Gold), wood, metal, vinyl, concrete and masonry. FLASHTAPE shall be applied prior to installation of windows and doors.
2. Ensure that surfaces where FLASHTAPE is to be installed are clean and dry, and install only when the ambient temperature is 40°F and rising.
3. Test adhesion of FLASHTAPE to all substrates with a small sample before proceeding.
4. Cut FLASHTAPE to the desired length, peel the protective backing, and position FLASHTAPE so that it laps onto the IMPERCOREV between 1" and 2". EPS should overlap FLASHTAPE by no more than 2".
5. For sill/jamb and jamb/head corners, install three lengths of FLASHTAPE at each corner. For sill/jamb, first apply a horizontal length, then a diagonal, and finally a vertical, so that each layer overlaps the previous, creating a flashed condition. For jamb/heads, install first the vertical length, then the diagonal, and finally the horizontal, utilizing a similar overlapping technique.
6. Roller apply IMPERCOREV over vertical condition FLASHTAPE surfaces.

E. COREVNET-DT WRAP MESH

1. WRAP MESH is installed at all system openings and terminations.
2. Approximately 2" of the 9" strip of COREVNET-DT shall be attached to the substrate with UNIBASE adhesive.

F. ADHESIVE

1. Apply UNIBASE adhesive mix to one entire side of the EPS board using a "U" notched trowel with notches 3/8" wide, 1/2" deep, and spaced 1 1/2" apart.
2. Do not apply adhesive to board edges.
3. The notched pattern must run vertically in all cases, so as to create a drainage channel behind the EPS board.

G. INSULATION BOARD

1. Standard 2' by 4' EPS board shall be installed.
2. After application of the adhesive, immediately affix the board to the substrate in a running bond pattern.
3. EPS insulation boards shall be applied with joints offset with respect to the substrate joints. Joints will be staggered at corners.
4. Light pressure should be evenly applied over the entire surface of the board and all board edges abutted tightly to the adjacent board.
5. Any open joints greater than 1/16" between boards must be filled with slivers of insulation board or Foam2Foam™ gap and crack filler by Wind-lock or approved equal. CAUTION: Do not use UNIBASE mix to fill gaps between EPS boards.
6. Cut boards into L shapes for installation at all corners of openings – board joints must never align with such corners.
7. The EPS insulation board should be allowed to cure undisturbed for twenty-four hours after installation.
8. Edges of the insulation board which are out of plane shall be sanded until flush.
9. All insulation board surfaces shall be lightly rasped in order to facilitate adhesion of the UNIBASE lamina.
10. The minimum thickness of the EPS insulation board after rasping, including any point where it has been routed or grooved, shall be 3/4".

H. FASTENER APPLICATION

1. When mechanical fasteners are specified, they shall be used in addition to adhesive, and never in lieu of the adhesive.
2. A minimum of six fasteners per 2' by 4' insulation board shall be used.
3. Fastener heads shall be flush with the surface of the insulation board.

I. UNIBASE LAMINA

1. Standard Impact Resistance
 - a. Always embed wrap mesh in UNIBASE mixture at all system terminations prior to installation of the UNIBASE lamina over the entire wall surface.
 - b. COREVNET-ST as a single layer may only be used above 6' above grade. COREVNET-ST may be used in a double layer or in combination with other COREVNET products below 6' above grade (see below).
 - c. Complete backwrapping: Use a stainless steel trowel to apply a uniform coat of UNIBASE mixture to an area of the EPS board the width of exposed wrap mesh, in a thickness of approximately 1/16". Embed the wrap mesh in UNIBASE mixture.
 - d. Place a 9" diagonal reinforcement on all corners of openings.
 - e. Use a stainless steel trowel to apply a uniform coat of UNIBASE mixture to the EPS board (or to the higher impact mesh lamina – see below) in a thickness of approximately 1/16".
 - f. Using a trowel, immediately embed the COREVNET-ST mesh in the wet UNIBASE mixture, working from the center to the edge, ensuring that the mesh is entirely embedded in the basecoat.
 - g. COREVNET-ST reinforcing mesh sheets shall overlap by 2", leaving no areas uncovered.
 - h. Allow the UNIBASE lamina to dry twenty-four hours prior to application of the finish coating. During this period, the surface should be protected from damage and weather.

2. Intermediate Impact Resistance:

- a. Follow procedure 1; a through d.
- b. Use a stainless steel trowel to apply a uniform coat of UNIBASE adhesive to the EPS board in a thickness of approximately 1/8".
- c. Using a trowel, immediately embed the COREVNET-RF mesh in the wet UNIBASE mixture, working from the center to the edge, ensuring that the mesh is entirely embedded in the basecoat.
- d. COREVNET-RF should be abutted tightly, not overlapped.
- e. Allow the UNIBASE coat to set a minimum of four hours prior to application of the Standard Impact Resistance layer. During this period, the surface should be protected from damage and weather.
- f. Follow procedure 1; e through h.

3. Heavy Duty Impact Resistance

- a. Follow procedure 1; a through d.
- b. Use a stainless steel trowel to apply a uniform coat of UNIBASE adhesive to the EPS board in a thickness of approximately 1/8".
- c. Using a trowel, immediately embed the COREVNET-HD mesh in the wet UNIBASE mixture, working from the center to the edge, ensuring that the mesh is entirely embedded in the basecoat.
- d. COREVNET-HD should be abutted tightly, not overlapped.
- e. Allow the UNIBASE coat to set a minimum of four hours prior to application of the Standard Impact Resistance layer. During this period, the surface should be protected from damage and weather.
- f. Follow procedure 1; e through h.

4 Super Heavy Duty Impact Resistance

- a. Follow procedure 1; a through d.
- b. Use a stainless steel trowel to apply a uniform coat of UNIBASE adhesive to the EPS board in a thickness of approximately 1/8".
- c. Using a trowel, immediately embed the COREVNET-SHD mesh in the wet UNIBASE mixture, working from the center to the edge, ensuring that the mesh is entirely embedded in the basecoat.
- d. COREVNET-SHD should be abutted tightly, not overlapped.
- e. Allow the UNIBASE coat to set a minimum of four hours prior to application of the Standard Impact Resistance layer. During this period, the surface should be protected from damage and weather.
- f. Follow procedure 1; e through h.

J. FINISH COATING

1. A clean stainless steel trowel shall be used for application and a wet edge shall always be maintained. To ensure uniform appearance, sufficient labor and material must be employed.
2. The material shall be worked from one side of the UNIBASE lamina to the opposite side, maintaining a wet edge.
3. The coating shall first be applied to the substrate and leveled, and then it shall be textured.
4. Consult individual finish coating product data sheets for additional details on installation techniques
5. Drying rate will vary depending on weather conditions. Until dry, the finish coat shall be protected from the weather. Flashing and other waterproofing systems shall be completed immediately after installation of the finish to protect the entire wall assembly from weather and to prevent water infiltration behind the wall system.
6. Avoid applying finish in direct sunlight or over hot basecoat surfaces.
7. Consistency of texture requires that applicators use the same tools and hand motions.
8. Do not install finish in sealant joints. Install sealants when the finish is completely dry.

3.3 FIELD QUALITY CONTROL

- A. Prior to commencing the project, the wall system installation company, General Contractor, substrate contractor and other trades whose work affects the building envelope shall meet at the jobsite to review and coordinate the work of their sections.
- B. The wall system installation company shall be responsible for the proper handling of materials and installation of the system per Corev's PRECOR-SB specifications and all related documents.
- C. Unless otherwise specifically agreed to in writing prior the commencement of the project, Corev America may conduct manufacturer site inspections but is not required to do so.

PART 4 MAINTENANCE

4.1 MAINTENANCE

- A. Repairing damage to the wall system
 - 1. Repair damage to the wall system as soon as possible after damage occurs, in order to prevent water infiltration.
 - 2. Consult Corev America's instructions for system patching.
 - 3. Even after full curing and weathering, and with use of the original color formulation, there can be no assurance that the color match will be exact.
- B. Basic Cleaning
 - 1. Power-wash at low pressure (never more than 600 PSI) with clean water. In particularly difficult areas, lightly scrub with a soft bristle brush. Never exceed pressure recommendation and never use hard bristle brushes or hard scrubbing on wall system finishes. Doing so may damage the finish coat and may void the manufacturer's warranty.
- C. Cleaning Mildew and Algae
 - 1. Mix water with household bleach in a ratio of 3:1, in an amount adequate to liberally cover the entire area to be cleaned.
 - 2. Cover vegetation and other materials that may be damaged by the bleach prior to spraying.
 - 3. Spray the mixture on the affected wall and lightly scrub with a soft bristle brush as necessary.
 - 4. After successful cleaning, rinse the entire wall surface thoroughly with clean water. Do not use solvent-based products as they are not compatible with PRECOR-SB components.
- D. Sealants and Flashings: It is critical that sealants and flashings be inspected on a regular basis for soundness and performance in preventing water infiltration. Where there is any question of soundness or performance, sealants and flashings shall be replaced or repaired.

PART 5 DISCLAIMER

This document conveys system, product and installation information related to the PRECOR-SB system and applicable as of the date of this document. Corev America assumes no liability, expressed or implied, for workmanship. The "approved" designation conferred by Corev America on selected installation companies does imply any endorsement or sponsorship of that installation company by Corev America. Installation companies are independent contractors and are entirely responsible for their workmanship.



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