

SPECIFICATION

TOTAL WALL

This Specification Data Sheet is designed to conform to a standard industry format used most frequently by Specifiers, Architects, and Registered Design Professionals.

1. PRODUCT NAME

TOTAL WALL SL Gold Hard Coat PM Exterior Insulated and Finish System (EIFS) with minimal jointing.

2. MANUFACTURER

TOTAL WALL, Inc.
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Rio, Wisconsin 53960

3. DESCRIPTION

TOTAL WALL SL Gold Hard Coat EIFS is a non-bearing exterior cladding for commercial and residential structures. The TOTAL WALL SL Gold EIFS is used to weatherproof, beautify and insulate any structure. Among the advantages of this exterior cladding system is:

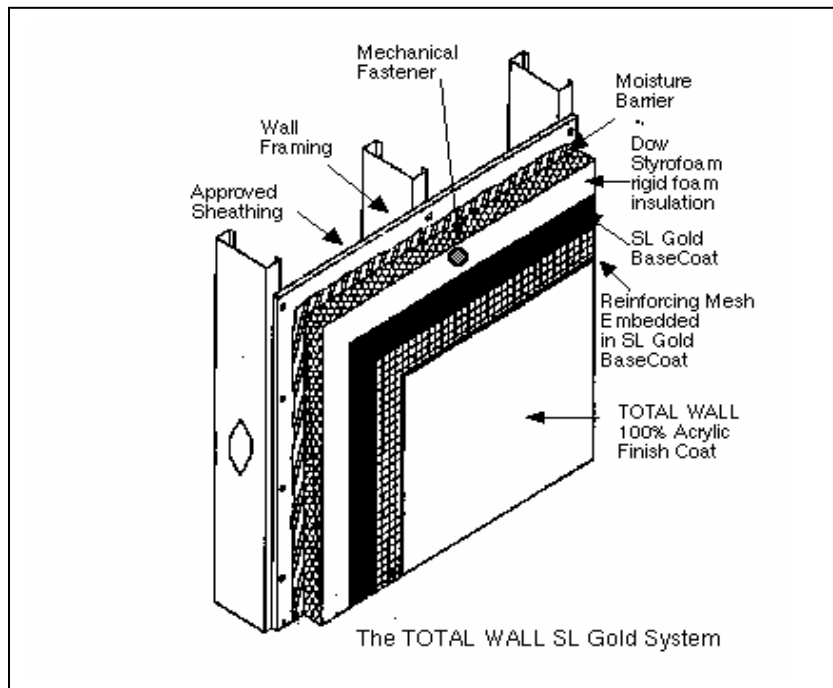
- it is light weight and will not stress the design structure;
- it does not consume interior space;
- it is highly energy efficient;
- employs a moisture barrier for residential applications;
- it is highly impact resistant;

- the exterior insulation tends to move the dew point toward the outside of the wall;
- practically any combination of color or texture can be achieved;
- the structure is easily accessorized with architectural enhancements made of the same materials as the wall system (arches, quoins, etc).

Limitations: TOTAL WALL products must be applied in temperatures of 40 F or higher. The freshly applied products must be protected from precipitation and the temperature maintained at 40 F or greater 24 hours. Stored

products should be under cover, protected from sun and freezing conditions. TOTAL WALL products are to be installed by TOTAL WALL Qualified Applicators who hold a *Certificate* from TOTAL WALL. Their installations are eligible for System Warranty. TOTAL WALL reserves the right to use certified inspectors on all phases of any installation.

Materials: TOTAL WALL SL Gold Hard Coat Systems are always mechanically fastened to any substrate. The type of fastener used is determined by the substrate. The fastener length is



determined by the insulation foam thickness. Optional system trim accessories may also be used. The accessories may include: starter track, and casing bead.

TOTAL WALL SL Gold Hard Coat EIFS consists of 5 layers or constituents.

Layer 1. Substrate

Approved substrates are: masonry such as brick, concrete block, concrete, or stucco; and sheathings such as exterior gypsum, plywood, cement board, OSB, Aquatough, masonry and DensGlass or equal. The sheathings must be properly attached to wood or metal framing spaced at either 12", 16" or 24" O.C.

Layer 2. Moisture Barrier

The use of an approved moisture barrier is required for all residential frame construction with moisture sensitive sheathing or framing. For commercial construction, the use of a moisture barrier optional unless moisture sensitive sheathing is used. The preferred moisture barriers are Tyvek Stucco Wrap, RainDrop, or Weather Trek. Standard Tyvek or 15# building paper are also acceptable. However,

drainable wraps are more effective in draining incidental water from the system and should be a first choice. The moisture barrier is installed in horizontal runs using staples starting at the bottom with a minimum 1/2" overlap onto the masonry foundation. The moisture is lapped so that water running down the wall will not get to the sheathing. If the windows are not already installed, the moisture barrier is back-wrapped into the window opening and the nailing flange is sealed to the moisture barrier when the window is installed. Window and door head flashing is required in residential construction. The window trims or flanges are sealed to the moisture barrier using a waterproofing tape, such as FortiFlash.

Layer 3. Rigid Insulation

The rigid insulation board shall be 2 pound per cubic foot density Extruded Polystyrene (XPS) board and meeting ASTM C578 Type IV requirements, have an R-value of ~5.0 per inch, be in either 4' X 8' sheets or 2' X 8' sheets, and have a thickness not less

than 0.75 inch or greater than 2 inches.

Layer 4.

- **Fasteners,**
- **Reinforcing Mesh,**
- **SL Gold Base Coat and**
- **Trim Accessories (opt).**

Fasteners:

The SL Gold System uses TOTAL WALL Hard Coat fasteners with a special design, non-corroding 1.75" polypropylene cap and corrosion resistant screws. Type "W" is for wood, Type "S" is for steel, Type "H-L S" is for light gauge steel, and Type "M" is used for masonry. The length of the fastener is determined by the thickness of the EIFS. For steel or wood, the fastener must be able to penetrate the framing members by at least 0.5". For masonry, the fastener holes must be pre-drilled and the fastener should have a minimum 1" penetration into the masonry substrate. Fasteners should be installed at a density of approximately 1 fastener per square foot.

Reinforcing Mesh:

A polymer coated woven fiberglass mesh. Roll dimensions are 38" by 150' for the Standard and

Enhanced weights, and 38” by 75’ for the Intermediate weight. All runs of mesh are lapped 2.5” minimum when applied.

1. Standard Mesh

A polymer coated woven fiberglass mesh with a weight of ~ 4 ounces per yard and a tensile strength of 150 lbs per inch warp and 200 lbs per inch weft.

2. Enhanced Mesh

A polymer coated woven fiberglass mesh with a weight of ~ 6 ounces per yard and a tensile strength of 165 pounds per inch warp and 225 pounds per inch weft.

3. Intermediate Mesh

A polymer coated woven fiberglass mesh with a tensile strength of 330 lbs per inch warp and 495 lbs per inch weft and a weight of ~ 11 ounces per yard.

Trim Accessories:

(optional)

Trim Accessories include: Starter Track with weep holes and dip edge (used at the lower termination of the system), Corner Bead (used at outside corners), and Casing Bead (used at system terminations and to make an expansion joint).

The trim accessories are available in PVC plastic.

TOTAL WALL SL Gold Base Coat:

This product is a dry powder that contains Portland cement, polymer, micro fiber reinforcement, specialty aggregates, and workability agents. It is available in 50 lb bags. Mix with water using a jiffy mixer blade and drill (or a mortar mixer) until a mortar-like consistency is achieved (use about 5 quarts of water per 50 lb bag). After initial mixing, allow to stand for 5 minutes and then remix. Pot-life will be from 30 to 45 minutes. If the mix stiffens during use, add a few ounces of water and remix. The SL Gold Base Coat is applied using a steel trowel and serves to embed the reinforcing mesh. The desired thickness of SL Gold Base Coat is 1/8” - 3/16”.

Layer 6. Finish Coat

The Finish Coat is the outer coating that gives color and texture to the SL Gold system. The Finish coat also provides additional protection against weather, mildew and pollution. All TOTAL WALL Finishes are 100% acrylic based

which gives them superior durability.

TOTAL WALL Finishes are pre-colored and ready-to-apply out of the pail. Total Wall Finishes are available in three series:

1. Premium Series - this series is rich in internally plasticized acrylic polymer, which provides for exceptional movement.
2. Classic Series - this series exceeds all requirements for EIFS industry standard finishes;
3. Journeyman Series - this series is designed for superior workability and performance.

Total Wall Finishes are available in the following textures and may be trowel applied or spray applied:

1. Swirl Ultra Coarse- generates a traditional wormhole appearance at 0.078 inch;
2. Swirl Coarse- generates a traditional wormhole appearance at 0.062 inch;
3. Swirl Fine- generates a traditional wormhole appearance at 0.049 inch;
4. ShotBlast Coarse- generates a coarse limestone appearance at 0.080 inch;
5. ShotBlast Medium- generates a coarse limestone appearance at 0.065 inch;

6. ShotBlast Fine - generates a very fine limestone appearance at 0.044 inch;
7. FreeStyle - generates a variety of hand-applied textures at varying thickness;
8. Gemstone - generates a variety of marble grain looks using colored aggregates in a clear acrylic base at 0.046 inch.

Applicable Standards:

TOTAL WALL has had extensive testing performed on each individual system component and on the assembled system by certified and code approved independent testing laboratories.

Uniform Building Code
Standard Building Code
National Building Code
International Building Code
International Residential Code

Professional Affiliations:

Professional Affiliations:
Total Wall maintains memberships and involvement with these organizations:

NES (National Evaluation Service)

ICBO ES (ICBO Evaluation Services)

EDI (Exterior Design Institute)

ASTM (American Society for Testing and Materials)

AWCI (Association for the Walls and Ceilings Industries)

NWCB (Northwest Walls and Ceilings Bureau)

4. TECHNICAL DATA

R-VALUE ~ R 5 per inch
Perm Rating ~ 1.53 @ 1" i
Weight ~ 3.0 lb per sq ft @ 1"

(weight does not include fastener)

Impact * 54 - 62 in-lbs

*using standard mesh

5. INSTALLATION

A. Substrate Preparation

) The wall should be in sound condition. Any deteriorated, rotted, damaged or soft areas must be repaired before proceeding.

) The wall should be uniform. Planar irregularities greater than 1 inch in 16 feet should be addressed prior to installation.

) Tyvek Stucco Wrap or other approved moisture barrier is strongly recommended over sheathing in residential construction to provide additional moisture protection and to facilitate a drainage plane for moisture to safely exit the system.

) Plan the placement of isolation joints, expansion joints and control joints. Isolation joints are recommended to control movement stresses around doors, windows and other penetrations. Isolation joints are typically 1/2" wide and filled with an approved backer rod and sealant. Alternatively, a fillet bead of sealant and suitable bond breaker may be used at these locations.

Expansion joints are 3/4" wide and filled with backer rod and sealant. They are used at:

- floor lines in wood frame construction;
- changes in substrate material;
- at through-wall joints.

Control Joints are designed breaks in the system lamina to relieve stresses that may accumulate to cause cracking. Control Joints are used to prevent a lineal run

of system from exceeding fifty feet.

) Protect windows, plants and other areas as necessary before proceeding.

B. Minimum Tools and Equipment

) A mixer for the base and finish coats (1/2" drill and jiffy mix-blade or mortar mixer)

) A drill and appropriate bits and tips for the fasteners

) A razor knife, tape measure, level, wire brush, bucket brush and chalk-line

) A hot knife tool or fine-toothed saw for cutting foam boards

) A stainless steel trowel, a margin trowel, and appropriate float.

C. Installing the Moisture Barrier.

a) If a weep base is being used, measure and cut a length of weep base and fasten it to the substrate. The bottom row of insulation boards will rest on the weep base strip.

b) Starting at the bottom, install horizontal runs of moisture barrier with staples. Be sure to lap the moisture barrier over the bottom of the sheathing and onto the masonry foundation 1/2" or over the

back of the weep base if one is being used. Lap runs of Tyvek Stucco Wrap about 6" so that water running the building cannot get to the sheathing. If raw window and door openings are present, back-wrap the moisture barrier into the openings.

D. Mounting the XPS board to the wall.

a) All insulation boards must meet specific performance criteria. These criteria include fire resistance, density minimums, and dimensional stability. Any discolored or warped boards should be rasped and used as cut trim pieces.

b) If termination accessories are not being used, attach standard detail mesh to the substrate for back-wrapping the board edges.

c) Place the rigid insulation board on the wall beginning at the weep base. Install Hard Coat fasteners at the rate of approximately one per square foot. If the system is being installed over masonry, the fastener holes must be pre-drilled with the proper size diameter masonry bit. For steel or wood studs, screw the fastener through the foam board and sheathing

into the stud. In all cases, the heads of the fasteners should be nearly flush with the surface of the insulation boards. Continue mounting insulation boards in this fashion using a running bond pattern.

d) Insert a sliver of foam board in any gaps > 1/16" between insulation boards.

At doors, windows and other protrusions, be sure to leave room (1/2") for insertion of backer-rod and caulk sealant between the SL Gold System and the edge of any door, window, or other penetration.

e) Lightly etch outer board surfaces with a wire brush.

f) Measure and cut long sheets of TOTAL WALL Reinforcing Mesh to cover the entire face of the insulation boards.

E. Applying SL Gold BaseCoat

a) Pre-skim fastener heads with SL Gold Base Coat and allow to dry. Using a steel trowel, apply SL Gold Base Coat mix to the surface of the foam insulation boards in a 1/8" skim coat.

b) Immediately embed the reinforcing mesh into the freshly applied Base Coat. Using a trowel, press the mesh into the Base Coat by

starting at the center and working toward the edges. Press out the air voids and wrinkles to produce a smooth Base Coat. Lap mesh layers and edges by a minimum of 2.5 inches. Overlay a 12-inch section of detail mesh placed at a 45° angle at each window corner and door corner to reinforce these natural stress points. Apply additional Base Coat as necessary to completely cover the mesh so that the fabric pattern is no longer visible.

F. Finishing

- a) Allow Base Coat to properly cure for at least 18 hours.
- b) Remove any trowel marks by rubbing a pumice stone over the surface.
- c) Apply the TOTAL WALL Finish of choice directly out of the bucket onto the cured Base Coat using a stainless steel trowel.
- d) Texture or float the finish to achieve the desired result.
- e) Allow the finish to cure by protecting from freezing and precipitation for 24 hours.

G. Installing Sealant

Insert a proper diameter backer rod into the joint at a

uniform depth. The backer rod should be a closed cell polyethylene material or an extruded polyolefin with a non-absorbing skin. Apply a primer when recommended by the sealant manufacturer. Prepare the sealant according to the manufacturer's instructions. Apply the sealant with pressure gun and properly sized nozzle. Fill the surface of the prepared joint with a smooth, solid, even bead of sealant. The bead must be free of sags, voids and wrinkles. Sealant should be bonded to the SL Gold Base Coat and not to the finish layer.

H. Enhancements

Architectural shapes such as quoins, corners, arches and cornices can be added during the middle or latter phases of the installation process. These shapes can be made at the job site or, they can be ordered completely prefabricated from TOTAL WALL.

I. Precautions:

The system is constructed to prevent water intrusion. Therefore, all details must be properly constructed. These details include: all caulking, kick-outs, flashings, utility

penetrations and terminations.

6. AVAILABILITY

TOTAL WALL materials are manufactured in Rio, WI and are purchased by Approved Applicators or Certified Applicators through TOTAL WALL Distributors. Contact your local Distributor for a list of Approved or Certified Applicators or call 888-702-9915 for assistance

7. WARRANTY

System Warranty
TOTAL WALL, Inc. warrants its system against delamination, fading*, or material defects when properly installed by a Qualified TOTAL WALL Applicator according to current TOTAL WALL and job specifications in force at the time of installation. The Warranty must be requested before system installation. A properly completed and signed inspection checklist must be submitted at job completion prior to issuance of any Warranty. TOTAL WALL reserves the right to review any claim and make the final determination as to the validity of the claim and the cause of the claim. At no time shall the value of the Warranty exceed the original purchase price of

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the materials. Should TOTAL WALL receive a valid claim, TOTAL WALL, at its option, will either repair the damage, replace materials, or refund in US dollars for the amount of damaged TOTAL WALL materials.

* Fading is defined as a DE of 2.0 or greater on an ACS colorimeter. Base 4 (accent) colors are not Warranted against fading.

End of Specification
06-2006