

## TOTAL SL GOLD PM CLASS PM Section 07240

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Seamless Hard Coat EIFS

AMERICA'S EIFS AND STUCCO COMPANY!

### 1. PRODUCT NAME

#### **Total SL Gold PM**

Hard Coat PM Exterior Insulated and Finish System (EIFS) with minimal jointing.

### 2. MANUFACTURER

Total Wall, Inc.  
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### 3. DESCRIPTION

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

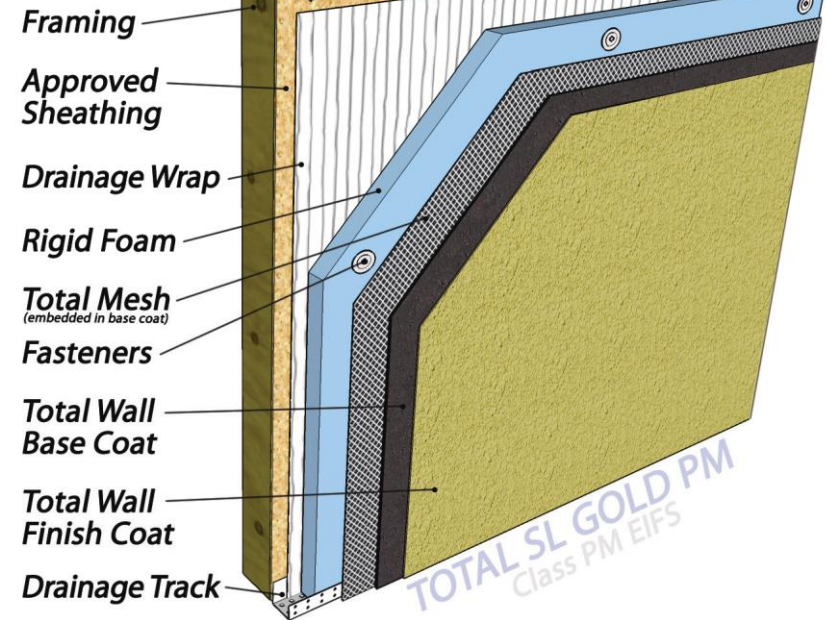
- It is light weight and will not stress the design structure
- It does not consume interior space
- It is highly energy efficient
- It employs a moisture barrier for residential applications
- It is highly impact resistant
- The exterior insulation tends to move the dew point toward the outside of the 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, Inc. products must be applied in temperatures of 40° F or higher. The freshly applied products must be protected from precipitation and the temperature must be maintained at 40° F or greater for 24 hours.

### TOTAL SL GOLD PM

Class PM Seamless Hard Coat EIFS



Stored products must be covered, and protected from sun and freezing conditions.

Total Wall products must be installed by certified Total Wall registered applicators. Only registered applicator installations are eligible for a System Warranty.

Total Wall reserves the right to use certified inspectors on any phase of installation.

#### **Materials:**

Total Wall SL Gold Hard Coat EIFS consists of 5 layers or constituents:

1. Substrate
2. Moisture barrier
3. Rigid insulation
4. Base coat / Reinforcing mesh / Trim accessories / Fasteners
5. Finish coat

Total SL Gold PM Hard Coat systems are always mechanically fastened to the 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
- Casing bead

#### **Layer 1 - Substrate**

Approved substrates are:

- Masonry
  - Brick
  - Concrete block
  - Concrete
  - Stucco
- Sheathings
  - Exterior gypsum
  - Exterior grade plywood
  - Cement board
  - Oriented strand board
  - Aquatough
  - Masonry
  - Siliconized-core gypsum board

The sheathing must be properly attached to wood or metal framing, with spacing at 12", 16" or 24" oc.

### **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 is optional unless moisture sensitive sheathing is used.

Preferred moisture barriers are:

- Tyvek Stucco Wrap
- RainDrop HouseWrap
- Weather Trek
- Standard Tyvek
- Grade "D" 15# building paper

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 barrier 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 must 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' or 2' x 8' sheets, with a minimum thickness of 1" and maximum thickness of 4".

### **Layer 4 -**

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

#### **Fasteners:**

The Total SL Gold PM 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-LS" is for light gauge steel
- Type "M" is 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 1/2". 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 ft<sup>2</sup>.

#### **Reinforcing Mesh:**

##### **1. Standard Mesh**

A polymer coated woven fiberglass mesh with a weight of ~ 4 ounces per yard and a relative impact resistance of 25-35 in/lbs. Runs of standard reinforcing mesh are lapped 2.5".

##### **2. Enhanced Mesh**

A polymer coated woven fiberglass mesh with a weight of ~ 6 ounces per yard and a relative impact resistance of 35-45 in/lbs. Runs of enhanced reinforcing mesh are lapped 2.5".

##### **3. Intermediate Mesh**

A polymer coated woven fiberglass mesh with a weight of ~ 11 ounces per yard and a relative impact resistance of 75-95 in/lbs. Runs of intermediate reinforcing mesh are lapped 2.5".

#### **Total Wall SL Gold Base Coat:**

This product is a dry powder that contains Portland cement, polymer, microfiber 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".

#### **Trim Accessories: (optional)**

Trim accessories include:

- Starter track – used at the lower termination of the system
- Corner bead – used at outside corners
- Stop bead – used at system terminations
- V-joint – a control joint accessory used to relieve stress that may cause cracking

The trim accessories are available in metal (either galvanized steel or solid zinc) or in PVC plastic. The use of metal accessories is recommended in climates where temperatures reach below 40° F.

### **Layer 5 - Finish Coat**

The Finish Coat is the outer coating which gives color and texture to the system. The Finish coat also provides protection against weather, mildew, and pollution. All Total Wall Finishes are 100% acrylic based, giving them superior durability, and are available in two grades:

#### **1. Premier Grade**

Premier grade is rich with internally plasticized acrylic polymer, which provides for exceptional movement.

#### **2. Journeyman Grade**

Journeyman grade is designed for superior workability and performance.

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

**1. Swirl Coarse** - generates a traditional wormhole appearance at ~ 0.078".

**2. Ultra Coarse** - generates a very coarse wormhole appearance at 0.098".

**3. Swirl Fine** - generates a traditional wormhole appearance at ~ 0.065".

**4. ShotBlast Coarse** - generates a coarse limestone appearance at ~0.059".

**5. Shot Blast Medium** - generates a coarse limestone appearance at ~ 0.078".

**6. Shot Blast Fine** - generates a very fine limestone appearance at ~ 0.044".

**7. Freestyle** - generates a variety of hand-applied textures at varying thicknesses.

**8. Gemstone** - generates a variety of marble grain looks using colored aggregates in a clear acrylic base at ~ 0.046".

#### Applicable Standards:

Total Wall, Inc. has had extensive testing performed on each individual system component and on the assembled system by certified and code approved independent testing laboratories.

- International Code Council (ICC)
- International Building Code (IBC)
- National Evaluation Services (NES)
- Uniform Building Code
- National Building Code
- Standard Building Code
- International Residential Code

#### Professional Affiliations:

Total Wall, Inc. maintains memberships and involvement with these organizations:

- Exterior Design Institute (EDI)
- American Society for Testing and Materials (ASTM)
- Federation of Societies for Coatings and Technology (FSCT)
- Association of the Wall and Ceiling Industries (AWCI)
- Northwest Walls and Ceilings Bureau (NWCBC)

## 4. TECHNICAL DATA

R-VALUE ~ R 5 per inch  
Perm Rating ~ 1.53 at 1"  
Weight ~ 3 lb per ft<sup>2</sup> at 1"  
Impact\* ~ 54 - 62 in/lbs.

\*using standard mesh

## 5. INSTALLATION

### A. Substrate Preparation

- ✓ The wall must be in sound condition. Any deteriorated, rotted, damaged or soft areas must be repaired before proceeding.
- ✓ The wall must be uniform. Planar irregularities greater than 1/4" in 10' must 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 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

- ✓ Drill mixer 1/2" and jiffy mix-blade
- ✓ Drill and appropriate bits and tips for the fasteners
- ✓ Razor knife
- ✓ Tape measure
- ✓ Level
- ✓ Wire brush
- ✓ Bucket brush
- ✓ Chalk-line
- ✓ Stainless steel trowel
- ✓ Margin trowel
- ✓ Appropriate float

- ✓ Hot knife tool or fine-toothed saw for cutting foam boards

### 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 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 must 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 ft<sup>2</sup>. 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 greater than 1/16" between insulation boards.

At doors, windows and other protrusions, leave 1/2" for insertion of backer-rod and caulk sealant between the Total SL Gold PM 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 SLGold Base Coat**

**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".

Overlay a 9" x 12" 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.

**c)** Allow base coat to cure for a minimum of 18 hours while protecting from freezing and precipitation.

**d)** Remove any trowel marks by rubbing a pumice stone over the surface.

**e)** An optional layer of Total Wall primer may be applied to the base coat to assure finish coat color consistency. It is highly recommended to apply a primer before applying any vibrant finish color.

### **E. Applying the Finish**

**a)** Apply the Total Wall finish of choice directly out of the bucket onto the cured base coat using a stainless steel trowel.

**b)** Texture or float the finish to achieve the desired result.

**c)** Allow the finish to cure by protecting from freezing and precipitation for 24 hours.

### **F. Installing Sealant**

With the exception of aesthetic joints, all isolation joints must be a minimum width of 1/2" and all expansion joints must be a minimum of 3/4" or 4 times the expected movement, whichever is greater.

Joint depth minimums are established by the sealant manufacturer and can be obtained from their literature or by calling Total Wall Technical Services.

All insulation board edges must be back-wrapped with mesh and base coat.

Apply a primer when recommended by the sealant manufacturer. Insert a proper diameter backer rod to allow for its compression into the joint at a uniform depth. The depth is to allow for the desired thickness caulk bead.

The backer rod must be a closed cell polyethylene material or an extruded polyolefin with a non-absorbing skin.

Prepare the sealant according to the manufacturer's instructions. Apply the sealant with a 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. Tool the joint to eliminate air pockets and force contact with the joint surfaces.

### **G. Architectural Enhancements**

Architectural shapes such as quoins, corners, arches, and cornices can be added after the base coat has cured. Foam shapes can be mounted using Total Wall Blue Mastic Adhesive or EnerFoam and temporary or permanent mechanical attachment as applicable. These shapes are then base coated and finished to match the flat wall application described above. Alternatively, finished shapes which match or accent the flat wall system can be mounted to the base coated or finished system. The quoins may be made at the job site, or can be ordered,

as well as any architectural enhancement, from Total Wall, Inc. Architectural enhancements are prefabricated and ready to mount to the wall.

### **H. Precautions**

Although this system will safely release water that inadvertently reaches behind the EIFS the system designed to be constructed to prevent water intrusion.

Therefore, all details must be properly constructed. These details include: all caulking detail, kick outs, flashings, terminations, and utility penetrations.

## **6. AVAILABILITY**

Total Wall, Inc. materials are manufactured in Wisconsin and are purchased by Registered Applicators through Total Wall Distributors. Contact your local distributor for a list of Registered Applicators or call Total Wall, Inc. (888-702-9915) customer service for assistance.

## **7. WARRANTY**

Total Wall, Inc. warrants its system against delamination or material defects when properly installed by a Registered Total Wall Applicator according to current Total Wall, Inc. and job specifications in force at the time of installation.

No warranty stated herein shall be effective until the goods and labor subject to said warranty have been paid for in full. Total Wall, Inc. makes no other express warranty or warranty of merchantability.

Further, Total Wall makes no warranty that the products of its manufacture are fit for any particular purpose. Defects caused by misuse, improper storage, mishandling or improper application shall not be warranted. Total Wall, Inc. is not responsible for damage or injury for materials not manufactured by Total Wall, Inc. acts of God, structural movement, or defective materials or their application on the warranted structure.