

## Surfacing Systems for the ProTEC Concrete Structural Insulated Panel System (SIPS)

Weather resistant surfacing system using a mesh-reinforced base coat and 100% acrylic polymer exterior finish

### DESCRIPTION

Senergy Surfacing Systems for the ProTEC Concrete SIPS provide the desirable “Stucco Look” and aesthetic appeal. The Senergy Surfacing Systems are comprised of a reinforced base coat, optional primer and a 100% acrylic polymer finish.

Finishes are available in a limitless color selection and offer performance enhancement options, including increased resistance to dirt pick-up and mildew.

### USES

For exterior walls in residential, commercial and institutional construction when a weather resistant, low maintenance “Stucco Look” wall finish is desired.

### LIMITATIONS

Do not apply the Surfacing Systems directly to dimensional framing lumber/ blocking which might occur at window and door bucks, etc. Do not apply the Surfacing Systems below grade. Cracks may occur at Util-A-Crete cement board joints and appear in the finished exterior surface. Surfacing Systems shall not serve as the foundation damp-proofing.

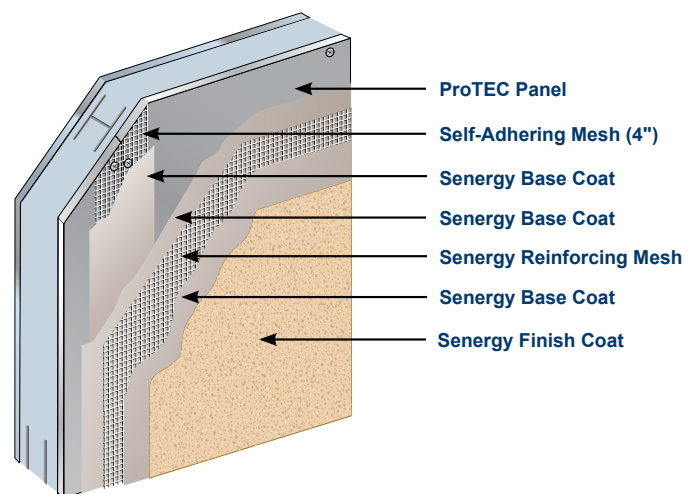
### DIRECTIONS

**General:** Repair any damaged ProTEC areas prior to the application of the Senergy Surfacing Systems. Comply with current Senerflex Wall System specifications and details except as noted herein. Consult ProTEC for uses, detail, design and application considerations as well as limitations of ProTEC Concrete SIPS.

#### **Application of the Surfacing Systems: Pre-treating Util-A-Crete Cement Board Joints, Corners, etc**

**A.** Center Self-Adhering Mesh Tape (4") over all cement board joints and terminations and firmly press while unrolling. For openings, apply Self-Adhering Mesh Tape (4") over channel and onto cement board.

**B.** Ensure Self-Adhering Mesh Tape (4") is continuous, void of wrinkles. Overlap Self-Adhering Mesh Tape (4") a minimum 65 mm (2 1/2").



**C.** Apply mixed Base Coat to entire surface of Self-Adhering Mesh Tape (4").

**D.** Allow Base Coat / Self-Adhering Mesh Tape (4") to dry prior to application of Senergy Reinforcing Mesh and Base Coat.

#### **Application of Senergy Reinforcing Mesh and Base Coat**

**A.** Apply mixed [ALPHA] [ALPHA DRY] [ALPHA GENIE] [STANDARD] [XTRA-STOP] Base Coat to entire surface of cement-board with a stainless steel trowel to embed the Reinforcing Mesh.

**B.** Immediately place Flexguard 4 Reinforcing Mesh against wet Base Coat and embed the Reinforcing Mesh into the Base Coat by troweling from the center to the edges.

**C.** Lap Reinforcing Mesh 64 mm (2 1/2") minimum at edges.

**D.** Ensure Reinforcing Mesh is continuous at corners, void of wrinkles and fully embedded in Base Coat.

## Senergy Surfacing Systems

FEATURES	BENEFITS
Unlimited colors, textures and architectural details	Support design flexibility
100% Acrylic, reinforced base coats	Produce a weather-resistant barrier, provide crack resistance
100% Acrylic finish coats	Resist fading and abrasion, offer options for added dirt/mildew resistance

**E.** If required, apply a second layer of Base Coat to achieve total nominal Base Coat/Reinforcing Mesh thickness of 1.6 mm (1/16").

**F.** Allow Base Coat with embedded Reinforcing Mesh to dry hard (normally 8 to 10 hours) prior to application of Senergy Finish.

### Application of Senergy Finish

**A.** Apply Finish directly to Base Coat/Reinforcing Mesh with a clean stainless steel trowel to thickness required for type of Finish specified.

**B.** Apply and level Finish during same operation to minimum obtainable thickness consistent with uniform coverage.

**C.** Maintain a wet edge on Finish by applying and texturing continually over the wall surface.

**D.** Work Finish to corners, joints, or natural breaks and do not allow material to set up within an uninterrupted wall area.

**E.** Float Finish to achieve final texture.

## COMPONENTS

Senergy Surfacing Systems are comprised of Senergy Base Coat, Senergy Reinforcing Mesh and a textured Finish from Senergy. Optional Tinted Primer can enhance appearance and performance.

### **Special Shapes:**

Used to enhance design aesthetics such as moldings, cornices, quoins, ogees, etc., these can be integrated into the system. The EPS insulation shapes must conform to Senergy specifications. They must be reinforced with Senergy Base Coat and Reinforcing Mesh prior to application of the optional Tinted Primer and Finish.

## STORAGE

Store material in a cool, dry place. Avoid direct sunlight. Maintain temperature above 4°C (40°F) (10°C/50°F for Aurora TC-100, Aurora Stone and Borealis Finishes).

## PRODUCT DATA - SIZES AND PACKAGING

Expanded Polystyrene Insulation Board: 0.6 m x 1.22 m (2' x 4'), minimum density of 14.41 k/m<sup>3</sup> (0.9 lb/ft<sup>3</sup>) and thickness minimum 25 mm (1") meeting Senergy specifications.

Self-Adhering Mesh Tape, standard weight reinforcing mesh coated with a pressure sensitive adhesive and used with Base Coat as reinforcement over sheathing joints, rough openings and at terminations.

Flexguard 4, standard reinforcing mesh at approximately 4.5 oz/yd<sup>2</sup> is available in 96.5 cm x 45.7 m (38" x 150') rolls. For wall system areas not expected to receive abnormal traffic or abuse.

Intermediate 6, standard weight reinforcing mesh at approximately 5.6 oz/yd<sup>2</sup> is available in 965 mm x 45.7 m (38" x 150') rolls. For wall system areas not expected to receive abnormal traffic or abuse.

Intermediate 12, intermediate weight reinforcing mesh at approximately 11 oz/yd<sup>2</sup> is available in 965 mm x 22.8 m (38" x 75') rolls. Used either alone or with Flexguard 4 or Intermediate 6 to provide added impact resistance at specific areas such as around doors and walkways.

Strong 15, medium-heavy weight reinforcing mesh at approximately 15 oz/yd<sup>2</sup> is available in 965 mm x 22.8 m (38" x 75') rolls. Used for areas expected to receive traffic and abuse.

Hi-Impact 20, heavyweight reinforcing mesh at approximately 20 oz/yd<sup>2</sup> is available in 990 mm x 22.8 m (39" x 75') rolls. Used for areas expected to receive a high degree of traffic and abuse.

Corner Mesh, intermediate-weight mesh at approximately 9.1 oz/yd<sup>2</sup> for use at exterior corners, is available in 241 mm x 45.7 m (9" x 150') rolls.

Approximate coverage rate for Alpha Genie Base Coat, Alpha Base Coat, Standard Base Coat, and Xtra-Stop Base Coat to embed Flexguard 4 is 26 m<sup>2</sup> (280 ft<sup>2</sup>) per 27.2-kg, 19-liter (60-pound, 5-gallon) pail.

## ProTEC Concrete SIPS ([www.tclear.com](http://www.tclear.com))

FEATURES	BENEFITS
Extruded polystyrene insulation core	Long-term high insulation value (R-20)
Util-A-Crete cementitious backer board skin	Moisture and impact resistant. Will not warp, decay, soften or swell
Quick and easy assembly	Reduced labor time and cost. Faster construction cycles
Reduced air infiltration	Lower heating/cooling costs. Greater overall comfort

Approximate coverage rate for Alpha Dry Base Coat to embed Flexguard 4 is 11.1 m<sup>2</sup> (120 ft<sup>2</sup>) per 22.6-kg (50-pound) bag.

Approximate coverage rate for Senergy Tinted Primer is 69.6–116.1 m<sup>2</sup> (750–1,250 ft<sup>2</sup>) per 24.9-kg, 19-liter (55-pounds, 5-gallon) pail.

Senerflex and Silcoat Finishes are packaged in 31.7-kg, 19-liter (70 pound 5-gallon) pails.

Approximate coverages per pail for various textures are: Classic [13 m<sup>2</sup> (140 ft<sup>2</sup>)], Belgian Lace [14.8 m<sup>2</sup> (160 ft<sup>2</sup>)], Fine [14.8 m<sup>2</sup>

(160 ft<sup>2</sup>)], Sahara [11.1 m<sup>2</sup> (120 ft<sup>2</sup>)], Coarse [8.3 m<sup>2</sup> (90 ft<sup>2</sup>)], Texture (coverage varies depending upon application).

### DESIGN CONSIDERATIONS

- Maximum allowable deflection is L/240.
- Windows and doors may permit some water to pass through the frame material or joints. To reduce the potential for intruding water, the rough opening must be properly protected and a means provided to allow intruding water to escape.
- Avoid details that trap water.
- Follow the window and door manufacturers' recommendations for proper installation.

### TECHNICAL SUPPORT

For answers to questions or specific recommendations about this assembly, please consult our website at [senergy.master-builders-solutions.com/en](http://senergy.master-builders-solutions.com/en) or contact our Technical Services Department: Toll-free 800-589-1336.

### HEALTH AND SAFETY

Follow good safety and industrial hygiene practices during handling and installing products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

**Master Builders Solutions  
Constructions Systems US, LLC**  
889 Valley Park Drive  
Shakopee, MN 55379 USA

**Customer Service** (800) 433-9517  
**Technical Service** (800) 589-1336  
[senergy.master-builders-solutions.com/en](http://senergy.master-builders-solutions.com/en)



® registered trademark of a Group member  
in many countries of the world  
© 2021 MBCC Group, rev 05/2021

**LIMITED WARRANTY NOTICE:** Master Builders Solutions Construction Systems US, LLC ("Master Builders") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. Master Builders MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. Master Builders WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders present knowledge and experience. However, Master Builders assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.