Senergy® Surfacing Systems for Insulating Concrete Forms

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

INTRODUCTION
This specification refers to applications of Senergy Surfacing Systems to Insulating Concrete Forms that are constructed of minimum 1.5 lb density EPS and do not utilize any external mechanical ties.

DESIGN RESPONSIBILITY
It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for its intended use. The designer selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details, shop drawings and the like. The Wall Systems business of BASF Corporation (herein referred to as “BASF Wall Systems”) has prepared guidelines in the form of specifications, typical application details, and product bulletins to facilitate the design process only. BASF Wall Systems 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 provided by BASF Wall Systems or otherwise, or for any changes which the purchasers, specifiers, designers or their appointed representatives may make to BASF Wall Systems published comments.

TECHNICAL INFORMATION
Consult our Technical Services Department for specific recommendations concerning all other applications. Consult the Senergy website, www.senergy.basf.com, for additional information about products and systems and for updated literature.

PART 1 - GENERAL
1.01 SECTION INCLUDES
A. Senergy Surfacing System: A finish system consisting of Base Coat, Reinforcing Mesh and Finish Coat.
B. Schedule of Senergy Finish Coat.

1.02 RELATED SECTIONS
Products installed, but not supplied under this section: insulated concrete form; concrete substrate; masonry substrate; cold-formed metal framing; sheet metal flashing and trim; perimeter flashings; sealants; metal support systems and gypsum board.

1.03 SUBMITTALS
Submit system guide on Senergy Surfacing System components, shop drawings, and system manufacturer’s certificate of approval of applicator.

1.04 QUALITY ASSURANCE MEASURES
A. Manufacturer: More than 10 years in the architectural coatings industry, with more than 1000 completed architectural coatings projects.
B. Applicator: Approved by BASF Wall Systems in performing work of this Section.
C. Regulatory Requirements: Conform to applicable code requirements for finish system.
D. Field Samples
   1. Construct one field sample panel for each color and texture, illustrating method of attachment, surface finish, color and texture, prepared using the same tools and techniques to be used for the actual application.
   2. Locate sample panel where directed.

1.05 DELIVERY, STORAGE, HANDLING AND SITE CONDITIONS
Comply with manufacturer’s recommendations regarding the effects of environmental conditions for its materials.
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1.06 SEQUENCING AND SCHEDULING
A. Coordinate and schedule installation of Senergy Surfacing System with related work of other sections.
B. Coordinate and schedule installation of trim, flashing, and joint sealers to prevent water infiltration behind the System.

1.07 WARRANTY
A. Provide BASF Wall Systems one-year finish materials coatings replacement warranty for Senergy Surfacing System installations under provisions of Section [01 70 00] [01 74 00] [ ].
B. Comply with BASF Wall systems project review requirements and notification procedures to assure qualification for warranty.

PART 2 - PRODUCTS
2.01 MANUFACTURERS
Senergy Surfacing System manufactured by BASF Corporation - Wall Systems (herein referred to as “BASF Wall Systems”).

2.02 MATERIALS
A. Senergy Adhesives/Base Coats
   1. [STANDARD] [ALPHA] BASE COAT: 100% acrylic base coat, field-mixed with Portland cement; manufactured by BASF Corp.
   2. [ALPHA DRY BASE COAT: dry-mix base coat containing Portland cement; manufactured by BASF Corp.]
   3. [XTRA-STOP BASE COAT: 100% acrylic, water-resistant base coat, field-mixed with Portland cement; manufactured by BASF Corp.]
   4. [ALPHA GENIE BASE COAT: fiber-reinforced, 100% acrylic base coat, field-mixed with Portland cement; manufactured by BASF Corp.]
B. [Portland cement: conform to ASTMC150, Type I, II, or IV, grey or white; fresh and free of lumps.]
C. Water: clean and potable without foreign matter.
D. FLEXGUARD Reinforcing Mesh (Optional): MIL-Y-1140G; Balanced, open weave glass fiber reinforcing mesh; twisted multi-end strands treated for compatibility with Senergy Direct Finish System components.
   1. FLEXGUARD 4: standard weight.
   2. FLEXGUARD 6: standard/medium weight.
   4. FLEXGUARD 15: Heavy weight, used only in combination with FLEXGUARD 4 or FLEXGUARD 6.
   5. FLEXGUARD 20: Heavy weight; used only in combination with FLEXGUARD 4 or FLEXGUARD 6.
   6. CORNER GRID: Intermediate weight, pre-marked for easy bending, for reinforcing at exterior/interior corners.
E. [TINTED PRIMER/STUCCOPRIME: 100% acrylic-based primer, available in a variety of colors to closely match any standard or custom Senergy Finish color.
F. [ASAP: 100% acrylic-based coating; color, to closely match the selected Senergy Finish Coat color; as manufactured by BASF Corp.]
G. Senergy Finish Coat: [SENERFLEX 100% acrylic polymer finish; air cured, compatible with Base Coat; Finish color factory-mixed; color [ ] as selected; Finish texture [CLASSIC] [FINE] [TEXTURE] [COARSE] [SAHARA] [BELGIAN LACE] [ENCAUSTO VERONA] [METALLIC] [BOREALIS] [AURORA TC-100] [AURORA STONE] [ALUMINA™] as scheduled; as manufactured by BASF Corp.]
   - OR -
     [SILCOAT®] Finish: Siliconized acrylic emulsion finish coat; air cured, Finish color factory-mixed; color [ ] selected; Finish texture [CLASSIC] [FINE] [TEXTURE] [SAHARA] as scheduled; as manufactured by BASF Corp.]
Note: Select finish coat color with a light reflectance value (LRV) of 20% or higher. The use of dark colors (LRV less than 20%) is not recommended with systems that incorporate expanded polystyrene (EPS). EPS has a sustained service temperature limitation of approximately 71°C (160°F).

PART 3 - EXECUTION
3.01 EXAMINATION
A. Verify project site conditions under provisions of Section [01 00 00] [ ].
B. CMU and/or precast concrete Wall System shall be installed in accordance with specifications, details and per applicable building code requirements.

C. Examine surfaces to receive Senergy Surfacing System and verify that substrate and adjacent materials are dry, clean, cured, sound and free of releasing agents, paint, or other residue or coatings. Verify substrate surface is flat, free of fins or planar irregularities. Verify substrate surface is flat, free of fins or planar irregularities greater than 6.4 mm in 3 m (1/4” in 10').

D. Fill large voids and irregularities with appropriate parging or cement mortar materials. ALPHA GENIE BASE COAT can be applied at a maximum thickness of 6.4 mm (1/4") to fill small voids and help level the surface. Other Senergy Base Coats can be applied at a maximum thickness of 3.2 mm (1/8"), to fill small voids and help level the surface.

E. Senergy TINTED PRIMER may be applied to surface prior to Senergy Finish application to reduce suction and the potential for color variation due to varying absorption rates.

F. Control/Expansion joint type and placement shall be the responsibility of the architect/engineer.

G. Unsatisfactory conditions shall be reported to the general contractor and corrected before application of the Senergy Surfacing System.

3.02 PREPARATION
A. Protect all surrounding areas and surfaces from damage and staining during application of Senergy Surfacing System.
B. Protect finished work at end of each day to prevent water penetration.
C. Fill gaps between insulation board with slivers of insulation board.
D. Rasp flush any irregularities of the insulation board greater than 1.6 mm (1/16”).

3.03 MIXING
General: No additives are permitted unless specified in product mixing instructions. Close containers when not in use. Prepare in a container that is clean and free of foreign substances. Do not use a container which has contained or been clean with a petroleum-based product. Clean tools with soap and water immediately after use. Reference current Senergy product bulletins for proper mixing instructions.

3.04 APPLICATION
General: Apply Senergy Surfacing System materials in accordance with current Senergy Surfacing System Specifications.
A. Senerflex Base Coat/Reinforcing Mesh: Base Coat shall be applied so as to achieve Reinforcing Mesh embedment with no Reinforcing Mesh color visible. Double layers of mesh must be applied at all inside and outside corners. Window corners also require secondary reinforcement as per details. Apply multiple of mesh and base coat where required for added impact resistance.

Note: Senergy TINTED PRIMER or STUCCOPRIME may be applied to dry Base Coat layer prior to Finish Coat. Application is done to help color uniformity.

[B. Apply Senergy ASAP/COLOR COAT into sealant joints after Base Coat has dried].
[C. Apply Senergy TINTED PRIMER or STUCCOPRIME to the dry Base Coat/Reinforcing Mesh].
D. Apply Senergy Finish Coat to match the specified Finish type, texture and color when Primer and/or Base Coat are dry.  
   1. [CLASSIC] [FINE] [TEXTURE] [BELGIAN LACE] [SAHARA]
      a. Apply and level Finish Coat during same operation to minimum obtainable thickness consistent with uniform coverage.
      b. Maintain a wet edge on Finish Coat by applying and texturing continually over the wall surface.
      c. Work Finish Coat to corners, joints, or natural breaks and do not allow material to set up within an uninterrupted wall area.
      d. Float Finish Coat to achieve final texture.

3.05 CLEANING
Clean adjacent surfaces and remove excess material, droppings, and debris.

3.06 PROTECTION
Protect finished work.

Note
BASF Wall Systems is an operating unit of BASF Corporation (herein referred to as “BASF Wall Systems”)

Residential Policy
Apply wall systems in accordance with local building codes in force at the time of construction. On one and two-family residential framed construction; BASF Wall Systems requires that the wall system selected be one that includes provisions for moisture drainage. Please view the Senergy Residential Policy Bulletin on the Senergy website for a more detailed discussion of this topic.
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