Senergy Platinum CI Stucco Plus
A continuously insulated stucco system featuring Neopor® rigid insulation board and Senershield-R or Senershield-VB air/water-resistive barrier

System Overview
DESCRIPTION
SENERGY PLATINUM CI STUCCO PLUS is a continuously insulated stucco system featuring Neopor® advanced insulation technology. Silver-gray Neopor® is the latest innovation in insulation from BASF that exceeds ASTM C578 Type I and Type II requirements. Neopor is a patented insulation material with graphite embedded into the polymer matrix. Graphite reflects infrared energy, thus decreasing the material’s thermal conductivity and increasing its R-value. SENERGY PLATINUM CI STUCCO PLUS utilizes a specially selected density (1.45 pcf) of Neopor rigid insulation board to optimize thermal performance. The boards are available in R-5, R-7.5 and R-10 thermal resistance for ease of design to ensure energy code compliance. Custom thicknesses are also available. The system uses Senershield-R or Senershield-VB air/water-resistive barrier to provide a premium level of protection of the sheathing and cavity against moisture and air intrusion. It offers design flexibility, aesthetic appeal and energy savings. Integrated system components include Senershield-R or Senershield-VB, Neopor rigid insulation board, lath, BASF Stuccobase, Senergy base coat and finish. Finishes are available in a limitless color selection. Performance enhancement options, include increased resistance to dirt pick-up and mildew, and specialty finishes that create stone-like, metallic or mottled stucco appearances. SENERGY PLATINUM CI STUCCO PLUS has passed rigorous tests including Full-Scale Fire, Radiant Heat, Wind-Load, and Water Resistance.

The system features easy installation, proven durability and low maintenance.

Apply the system directly to the following acceptable substrates:
- ASTM C1177 type sheathings, including DensGlass™ exterior sheathing, eXP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, Weather Defense™ Platinum sheathing, and GreenGlass® sheathing
- PermaBase™ cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior)
- Untreated Exposure I or exterior plywood sheathing (grade C-D or better)
- Untreated Exposure I OSB
- Gypsum sheathing (ASTM C79/ASTM C1396).
- Poured concrete/unit masonry

USES
For exterior walls in new and retrofit commercial, institutional and residential construction when a continuous high effective R-value is needed to meet energy or eco-efficiency standards, and/or when a rainscreen is desired or required to satisfy code issues related to drainage.

ADVANTAGES
- Highly energy efficient, easy to specify a design that meets ASHRAE design standards and IGCC/IECC code requirements for the use of continuous insulation
- Neopor R-5, R-7.5 and R-10 rigid insulation boards offer numerous advantages:
  - Zero thermal drift that ensures long-term R-value stability.
  - Contains no CFC’s or HCFC’s and is manufactured with a foaming agent that has zero-ozone depletion potential to lower environmental impact
  - Vapor permeable and water resistant for optimum drainage wall performance
  - Silver-gray color reduces job site glare and is easier on the eyes of installers
  - Is 100% recyclable and Greenguard Gold Certified
- Fluid applied air/water resistive barrier provides a durable, seamless building wrap
- Provides a drainage plane for directing incidental moisture out of the wall assembly
- Seamless wall surface provides high resistance to potential water intrusion from rain and other environmental sources
- Available self-furred glass fiber reinforcing lath in durable plaster base that will not rust.
- Factory prepared STUCCOBASE minimizes potential site mixing errors; improves quality control.
- Acrylic modified base coat over STUCCOBASE enhances water resistance performance and finish coat aesthetics.
- Elastomeric finish coat bridges hairline cracks.
- Reinforcing mesh option further increases crack resistance.
- Very resistant to impact; good for high traffic areas.
- Cost-effective
- Provides design flexibility with numerous design options
- Economical architectural detailing
- Fade-, abrasion- and dirt-resistant
- Wide selection of finish textures, standard colors and unlimited custom colors
DESIGN CONSIDERATIONS

- Maximum allowable deflection L/360, based on structural properties only.
- The design wind load shall not exceed the system’s allowable wind load as stated in applicable code reports.
- Details shall conform with BASF Wall Systems’ recommendations and shall be consistent with the project requirements.
- Control joints and trim accessories required. Control joint placement is required in the SENERGY PLATINUM CI STUCCO PLUS wall system every 144 ft² per ASTM C1063.
- Consult the framing and sheathing manufacturer for design and application considerations.
- Expansion joints are required in the system where they exist in the substrate, where the system adjoins dissimilar construction, at changes in substrates and at floor lines in multilevel wood frame construction.
- System shall terminate at expansion joints.
- Sealant joints shall be detailed and installed per sealant manufacturer’s recommendations.
- A minimum 6:12 slope is required on all horizontal surfaces greater than 1”.
- Backer rod, sealant and flashing are required at door and window openings.

BEST PRACTICES FOR INSTALLERS

- It is recommended that the building should carry a minimum of 90 percent of the dead building load and that the interior gypsum should be installed prior to installation of the stucco.
- Coordination of other trades is recommended so that wall penetrations for cable, electricity, water and vents are installed with proper enclosures prior to installation of the stucco.
- Pail components must be kept at a minimum of 4°C (40°F) and at a maximum of 43°C (110°F) during shipping and storage.
- A minimum temperature of 4°C (40°F) is required during application of liquid components and until completely dried.
- Protect dry (bagged) products from moisture.
- No additives are permitted to any components unless specifically approved by BASF Wall Systems.
- Follow the application instructions for each component.
- Windows and doors may permit some water to pass through the frame materials or joints. To reduce the potential for intruding water to degrade water-sensitive sheathing and framing, and to keep water out of the stud cavity, rough openings must be properly protected and a means provided to allow intruding water to escape.
Neopor Rigid Insulation Board Test Results

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>ASTM Method</th>
<th>Units</th>
<th>R-5</th>
<th>R-7.5</th>
<th>R-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value, 75F</td>
<td>C518</td>
<td>Btu • in²/ft² • hr • degF</td>
<td>5</td>
<td>7.5</td>
<td>10</td>
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<tr>
<td>R-Value, 40F</td>
<td>C518</td>
<td>Btu • in²/ft² • hr • degF</td>
<td>5.5</td>
<td>7.9</td>
<td>11</td>
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<tr>
<td>Thickness</td>
<td></td>
<td>inches</td>
<td>1 1/8</td>
<td>1 5/8”</td>
<td>2 1/4”</td>
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<tr>
<td>Compressive Strength</td>
<td>D1621</td>
<td>psi, min</td>
<td>20</td>
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<tr>
<td>Flexural Strength</td>
<td>C203</td>
<td>psi, min</td>
<td>40</td>
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<td></td>
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<tr>
<td>Water Vapor Permeance</td>
<td>E96</td>
<td>perm, max</td>
<td>3.5</td>
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<tr>
<td>Water Absorption</td>
<td>C272</td>
<td>% by volume max</td>
<td>3.0</td>
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<tr>
<td>Water Affinity</td>
<td>BASF</td>
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<tr>
<td>Water Capillarity</td>
<td>BASF</td>
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<tr>
<td>Dimensional Stability</td>
<td>D2126</td>
<td>% linear change max</td>
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<tr>
<td>Flame Spread</td>
<td>E84</td>
<td></td>
<td>&lt;25</td>
<td></td>
<td></td>
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<tr>
<td>Smoke Developed</td>
<td>E84</td>
<td></td>
<td>&lt;450</td>
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<td></td>
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<tr>
<td>Oxygen Index min</td>
<td>D2863</td>
<td>min</td>
<td>24</td>
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<tr>
<td>Adhesive Compatibility</td>
<td>BASF</td>
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</table>

Senergy Platinum CI Stucco Plus Test Results - Complies with AC 11

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM G153 Accelerated weathering</td>
<td>No deleterious effects after 2000 hours viewed under 5x magnification.</td>
</tr>
<tr>
<td>ASTM D2247 Water Resistance</td>
<td>No deleterious effects at 14 day exposure.</td>
</tr>
<tr>
<td>NFPA 268 Radiant heat exposure</td>
<td>Met test criteria with R10 NEOPOR insulation.</td>
</tr>
</tbody>
</table>
| ASTM E 84 Surface burning                                 | System Components
Flame spread <25; Smoke developed <450                         |
| ASTM E119 Methods for fire tests of building construction and materials | 1 hour rating with maximum R10 NEOPOR insulation                      |
| ASTM E136 Behavior of materials in a vertical tube furnace at 750° C | StuccoBase with PermaLath and PermaLath 1000 specimens met the weight loss criteria for passing the test. |
| ASTM E2273 Drainage efficiency                            | Exceeds 90% minimum                                                   |
| ASTM B117 Salt spray resistance                           | No deleterious effects at 300 hours exposure period.                  |
| AC11 Freeze-thaw resistance                               | No deleterious effects after 10 cycles viewed under 5x magnification. |

Warranty

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