

## Memo

To: All Senergy Distributors  
From: Eric Auman  
cc:  
Subject: Evaluation Report ESR-1794  
Date: 6-4-2019

Please be advised that ICC-ES Evaluation Report ESR-1794 (which included Senerflex Classic PB and the Senturion Systems) was not renewed and is no longer a valid report, as of November 2018.

This does not mean the referenced systems are not code compliant, all the testing required for code compliance remains valid. Please see the attached bulletin for further information.

January 4, 2019

Re: Code Compliance of Senergy Senerflex Classic PB and Senturion EIFS  
2009, 2012, 2015 and 2018 IBC and IRC

Exterior Insulation and Finish Systems have been included in the International Building Code (IBC) and International Residential Code (IRC) since the 2009 versions were published. The IBC and IRC are the basis for national and local construction regulations in the United States and abroad.

IBC Section 1408 governs the materials and construction of EIFS on commercial construction – with reference to IBC Section 2603.5 for fire performance (NFPA 285, NFPA 268, ASTM E119, etc). IRC Section R703.9 governs for EIFS on residential construction (one and two family dwellings and townhouses).

Within both the IBC and IRC, ASTM E2568 is the standard cited for EIFS performance compliance. In addition, ASTM E2273 is cited for EIFS with Drainage and ASTM E2570 is included for fluid applied water-resistive barriers.

Senerflex Classic PB complies with the performance requirements of Section 1408 and Section 2603.5 for fire performance. It is code compliant on all types of construction under the IBC *except* framed walls of Type V construction in R1, R2, R3 or R4 occupancy group. Under the IRC, Classic PB is limited to use on concrete or masonry walls.

The Senturion systems comply with IBC Section 1408 including the requirements for drainage performance, and Section 2603.5 for fire performance. They comply with the requirements set forth in IRC Section R703.9. The Senturion systems are code compliant on all types of construction under the IBC and IRC.

The tables on the following pages provide further information regarding the compliant assemblies tested for specific requirements such as noncombustible construction.

Please feel free to contact us with questions or comments. Thank you.

Respectfully,

A handwritten signature in blue ink, appearing to read "Eric Auman".

Eric Auman  
Engineering Specialist

Table 1 – Wind Load Design Senerflex Classic PB

| Framing            |                        | Substrate                                                                                                                                                              | Insulation               |                                                                    |
|--------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------|
| Type               | Maximum Spacing (inch) |                                                                                                                                                                        | EPS min thickness (inch) | Allowable Wind Load (psf)                                          |
| 2x4 wood           | 24                     | Min 7/16" wood structural panel attached in accordance with code or ½" ASTM C1396 or C1177 gypsum attached with #8 x 1 ¼" screws at 8" oc                              | 3/4                      | 30 positive<br>30 negative                                         |
| 3 5/8" 20 ga steel |                        | Min 7/16" wood structural panel attached in accordance with code or ½" ASTM C1396 or C1177 gypsum attached with #8 x 1 ¼" screws at 8" oc on edges and 12" oc in field |                          | 30 positive<br>23 negative                                         |
| 3 5/8" 18 ga steel |                        | Min 7/16" wood structural panel attached in accordance with code or ½" ASTM C1396 or C1177 gypsum attached with #8 x 1 ¼" screws at 8" oc on edges and 12" oc in field |                          | 30 positive<br>30 negative                                         |
| 3 5/8" 18 ga steel | 16                     | Metal lath fastened through ½" ASTM C1396 or C1177 gypsum attached with #8 x 1 ¼" screws at 8" oc                                                                      |                          | 54 positive<br>54 negative                                         |
| N/A                | N/A                    | Concrete or masonry                                                                                                                                                    |                          | Positive limited to capacity of concrete or masonry<br>30 negative |

Framing members must be designed to resist all positive and negative transverse loads with a maximum allowable deflection of 1/240 of the span

Above results represent failures in the framing and/or sheathing connections, not failure of the Senerflex Classic PB

Table 2 – Wind Load Design Senturion I, II and III Systems

| Framing                                                  |                        | Substrate                                                                                                      | Insulation               |                                                                                                                                                                                                                                                                                                                                                                                      |                            |
|----------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Type                                                     | Maximum spacing (inch) |                                                                                                                | EPS min thickness (inch) | Attachment                                                                                                                                                                                                                                                                                                                                                                           | Allowable Wind Load (psf)  |
| 2x4 Wood                                                 | 16                     | Min <sup>7</sup> / <sub>16</sub> inch wood structural panel, attached in accordance with the code              | 1                        | Wind-Devil 2 plates; W series fasteners with <sup>5</sup> / <sub>8</sub> " penetration through sheathing, 8 fasteners per board spaced 12 inches on center vertically and horizontally                                                                                                                                                                                               | 27 positive<br>35 negative |
|                                                          |                        |                                                                                                                | 2                        |                                                                                                                                                                                                                                                                                                                                                                                      | 28 positive<br>41 negative |
|                                                          |                        |                                                                                                                | 1½ (channeled)           |                                                                                                                                                                                                                                                                                                                                                                                      | 52 positive<br>28 negative |
|                                                          | 24                     |                                                                                                                | 1                        |                                                                                                                                                                                                                                                                                                                                                                                      | 19 positive<br>33 negative |
|                                                          |                        |                                                                                                                | 2                        |                                                                                                                                                                                                                                                                                                                                                                                      | 19 positive<br>36 negative |
| 3 <sup>5</sup> / <sub>8</sub> -inch-by No. 20 gage steel | 16                     | Min ½" ASTM C1396 or C1177 gypsum, min 7/16" wood structural panel, ASTM C1325 cement board. Attached per code | 1                        | Wind-Devil 2 plates; wood sheathing W series fasteners with <sup>5</sup> / <sub>8</sub> " penetration through sheathing, 8 fasteners per board spaced 12 inches on center vertically and horizontally; gypsum or cement board sheathing S series fasteners with <sup>5</sup> / <sub>8</sub> " penetration through studs, 12 fasteners per board spaced 8 inches on center vertically | 21 positive<br>29 negative |
|                                                          |                        |                                                                                                                | 2                        |                                                                                                                                                                                                                                                                                                                                                                                      | 21 positive<br>29 negative |
|                                                          | 24                     |                                                                                                                | 1                        | Wind-Devil 2 plates; wood sheathing W series fasteners with <sup>5</sup> / <sub>8</sub> " penetration through sheathing, 8 fasteners per board spaced 12 inches on center vertically and horizontally; gypsum or cement board sheathing S series fasteners with <sup>5</sup> / <sub>8</sub> " penetration through studs, 12 fasteners per board spaced 8 inches on center vertically | 10 positive<br>21 negative |
|                                                          |                        |                                                                                                                | 2                        | Wind-Devil 2 plates; wood sheathing W series fasteners with <sup>5</sup> / <sub>8</sub> " penetration through sheathing, 8 fasteners per board spaced 12 inches on center vertically and horizontally; gypsum or cement board sheathing S series fasteners with <sup>5</sup> / <sub>8</sub> " penetration through studs, 9 fasteners per board spaced 8 inches on center vertically  | 12 positive<br>21 negative |

Framing members must be designed to resist all positive and negative transverse loads with a maximum allowable deflection of 1/240 of the span

Table 3 – Assemblies for Use in IBC Types I – IV (non-combustible) Construction

| Framing Members               |          |                      | Interior Sheathing     |                               |                                  | Exterior Sheathing                   |                               |                               | Insulation Board Thickness Maximum (inches) |
|-------------------------------|----------|----------------------|------------------------|-------------------------------|----------------------------------|--------------------------------------|-------------------------------|-------------------------------|---------------------------------------------|
| Steel                         |          | Max Spacing (inches) | Type <sup>1</sup>      | Min Thickness (inch)          | Max Fastener Spacing (inches)    | Type                                 | Min Thickness (inch)          | Max Fastener Spacing (inches) |                                             |
| Min Depth (inches)            | Min Gage |                      |                        |                               |                                  |                                      |                               |                               |                                             |
| SENERFLEX SYSTEM              |          |                      |                        |                               |                                  |                                      |                               |                               |                                             |
| 3 <sup>5</sup> / <sub>8</sub> | 20       | 16 oc                | ASTM C36 or ASTM C1396 | 1 <sup>1</sup> / <sub>2</sub> | 8 oc on joints<br>12 oc in field | ASTM C79 or ASTM C1396 or ASTM C1177 | 1 <sup>1</sup> / <sub>2</sub> | 8 oc                          | 13                                          |
| SENTURION I, II and III       |          |                      |                        |                               |                                  |                                      |                               |                               |                                             |
| 3 <sup>5</sup> / <sub>8</sub> | 20       | 16 oc                | ASTM C36 or ASTM C1396 | 1 <sup>1</sup> / <sub>2</sub> | 8 oc on joints<br>12 oc in field | ASTM C79 or ASTM C1396 or ASTM C1177 | 1 <sup>1</sup> / <sub>2</sub> | 8 oc                          | 4                                           |

The fasteners are #6 x 1<sup>1</sup>/<sub>4</sub> inch long bugle head screws.

When applied directly to concrete or masonry, the walls may be considered noncombustible construction.

Openings must be framed with minimum No. 20 gage steel studs and tracks.

Table 4 – One-Hour Fire-Resistance Rated Assemblies (rated from both sides)

| Framing Members                       |          |                      | Interior Sheathing            |                               |                                  | Exterior Sheathing                          |                               |                                  | Insulation Board Thickness Maximum (inches) |
|---------------------------------------|----------|----------------------|-------------------------------|-------------------------------|----------------------------------|---------------------------------------------|-------------------------------|----------------------------------|---------------------------------------------|
| Steel                                 |          | Max Spacing (inches) | Type                          | Min Thickness (inch)          | Max Fastener Spacing (inches)    | Type <sup>1</sup>                           | Min Thickness (inch)          | Max Fastener Spacing (inches)    |                                             |
| Min Depth (inches)                    | Min Gage |                      |                               |                               |                                  |                                             |                               |                                  |                                             |
| SENERFLEX and SENTURION I, II and III |          |                      |                               |                               |                                  |                                             |                               |                                  |                                             |
| 3 <sup>5</sup> / <sub>8</sub>         | 18       | 16 oc                | ASTM C36 or ASTM C1396 Type X | 5 <sup>5</sup> / <sub>8</sub> | 8 oc on joints<br>12 oc in field | ASTM C79 or ASTM C1396 or ASTM C1177 Type X | 5 <sup>5</sup> / <sub>8</sub> | 8 oc on joints<br>12 oc in field | 4                                           |

The fasteners are #6 x 1<sup>5</sup>/<sub>8</sub> inch long bugle head screws.