

# Product Evaluation Report

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## Manufacturer

CertainTeed Gypsum Inc.  
20 Moores Rd.  
Malvern, PA 19355

## Product Series, Model and/or Description

1/2" and 5/8" GlasRoc Sheathing

**Code:** Current Edition of the Florida Building Code including 8th Edition (2023) Florida Building Code

**Compliance Methods:** Product Approval Rule 61G20-3.005(1)(d) – Product Evaluation Report by a Licensed Professional Engineer

**Product Category:** Panel Walls

**Product Sub-Category:** Siding

**Engineering Analysis:** The following engineering and/or rational analysis/calculations have been performed.

- Product rational analysis have been substantiated by calculation (PTC Report. No. 2696) prepared, signed, and sealed by Robert J. Amoroso, P.E. in accordance with the current edition of the Florida Building Code.
- See Appendix A for analysis methodology and results.

## **Performance Testing Standards:**

- ASTM C1177/C1177 M-08
- ASTM E330-02

## **Product Testing:**

- 1/2" GlasRoc Sheathing
  - Progressive Engineering Inc. Report No. 2010-1148(A), dated 10/21/2010, 1/2" GlasRoc Sheathing to ASTM C1177/C1177 M-08
  - HTL Report No. 0554-0906-09, testing to ASTM E330-02.
- 5/8" GlasRoc Sheathing
  - Progressive Engineering Inc. Report No. 2010-1148(B), dated 10/21/2010, 5/8" GlasRoc Sheathing to ASTM C1177/C1177 M-08
  - HTL Report No. 0554-0906-09, testing to ASTM E330-02.

## **Installation and Application of Gypsum Sheathing:**

- Gypsum Association, GA-253-2021 Application of Gypsum Sheathing, Copyright© Gypsum Association 2021, [www.gypsum.org](http://www.gypsum.org).

## **Limitations & Conditions of Use:**

- This product has not been tested or evaluated for use inside the HVHZ (High Velocity Hurricane Zone).
- This product has not been tested for Impact Resistance.
- Refer to Product Installation Instructions noted above for:
  - Maximum allowable wind loads at related maximum allowable size(s).
  - Overall dimensions and material/grade of main product components, accessories, etc.
  - Illustrated diagrams of the attachment of the product to the structure.
  - Anchor type(s), size(s), substrate(s), embedment, edge distance, and spacing/locations.



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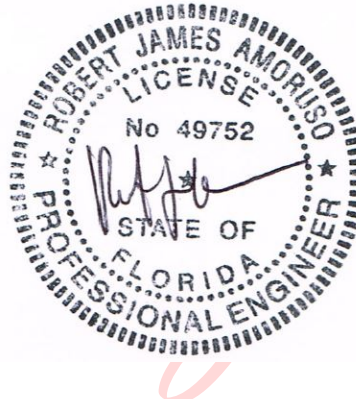
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- Site wind pressures shall be determined by a licensed professional engineer in accordance with the current edition of the Florida Building Code (and/or ASCE 7 as referenced in the current edition of the Florida Building Code) for components and cladding based on allowable stress design.
- Site conditions not covered in this product evaluation document are subject to additional engineering analysis by a licensed professional engineer or registered architect as required by the authority having jurisdiction.
- Adequacy of the existing structural substrates as a main wind force resisting system capable of withstanding and transferring applied product loads to the foundation is the responsibility of the licensed professional engineer or registered architect acting as the design professional of record for the project of installation.

## Certificate of Independence per Product Approval Rule 61G20-3.009

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. does not have, nor will acquire, any financial interest in the company manufacturing or distributing product(s) covered by this Product Evaluation Report.

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. do not have, nor will acquire any financial interest in any other entity involved in the approval process or testing of the product(s) covered by this Product Evaluation Report.



Digitally signed  
by Robert J  
Amoruso  
Date:  
2023.06.22  
15:57:23 -04'00'

Evaluated by:  
Robert J. Amoruso, P.E.  
FL PE License No. 49752



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## Appendix A – Analysis Method and Results

- Present test results to ASTM C1177
  - Table 1a and Table 1b below.
- Present test results to ASTM E330
  - Table 2 - ASTM E330 Test Results
- Derive equivalent ASCE 7 Basic Wind Speeds based on ASTM E330 results
  - Method of Analysis Summary
  - Table 3 – Inputs for Basic Wind Speed Coefficients & Constants
  - Table 4 - Velocity Pressure (psf)  $q_z$  Coefficient in terms of Wind Speed (V)



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Table 1a - Test Results (ASTM C1177/C1177M-08)

| Report                                   | Test Agency | Sample Size   | Thickness (in.) | Flexural Strength |                      | Material Hardness |            |             | Nail Pull Resistance (lbf.) | Humid Deflection (in.) | End Squareness (in.) | Width (in.)  | Length (in.) | Thickness (in.) | Water Resistance |
|------------------------------------------|-------------|---------------|-----------------|-------------------|----------------------|-------------------|------------|-------------|-----------------------------|------------------------|----------------------|--------------|--------------|-----------------|------------------|
|                                          |             |               |                 | Edge Prep. (lbf)  | Edge Parallel (lbf.) | Core (lbf.)       | End (lbf.) | Edge (lbf.) |                             |                        |                      |              |              |                 |                  |
| 2010-1148(A)                             | PEI         | ASTM C473-09b | 1/2"            | 151               | 145                  | 41                | 39         | 37          | 81                          | 1/8"                   | 0.000                | -1/16"       | 0.000        | 0.006           | 4%               |
| Values required per ASTM C1177/C1177M-08 |             |               |                 | 100               | 80                   | 15                | 15         | 15          | 80                          | 1/4"                   | +1/8"                | +0" to -1/8" | 1/4"         | +1/32"          | 10%              |
| Test Result                              |             |               |                 | PASS              | PASS                 | PASS              | PASS       | PASS        | PASS                        | PASS                   | PASS                 | PASS         | PASS         | PASS            | PASS             |

|                                          |     |               |      |      |      |      |      |      |      |      |       |              |       |        |      |
|------------------------------------------|-----|---------------|------|------|------|------|------|------|------|------|-------|--------------|-------|--------|------|
| 2010-1148(B)                             | PEI | ASTM C473-09b | 5/8" | 202  | 179  | 39   | 38   | 36   | 99   | 1/8" | 0.000 | -3/32"       | -1/8" | 0.007  | 4%   |
| Values required per ASTM C1177/C1177M-08 |     |               |      | 100  | 80   | 15   | 15   | 15   | 80   | 1/4" | +1/8" | +0" to -1/8" | 1/4"  | +1/32" | 10%  |
| Test Result                              |     |               |      | PASS | PASS | PASS | PASS | PASS | PASS | PASS | PASS  | PASS         | PASS  | PASS   | PASS |

Table 1b - Summary of Tests

| 1/2" GlasRoc Sheathing |                                               |
|------------------------|-----------------------------------------------|
| ASTM C1117             | Meets Glass Mat Gypsum Substrate as Sheathing |
| ASTM E330              | See Table 5 for DP (psf) vs. Wind Speed (MPH) |

| 5/8" GlasRoc Sheathing |                                               |
|------------------------|-----------------------------------------------|
| ASTM C1117             | Meets Glass Mat Gypsum Substrate as Sheathing |
| ASTM E330              | See Table 5 for DP (psf) vs. Wind Speed (MPH) |

## Conclusion:

The 1/2" GlasRoc Sheathing meets the requirements as specified in ASTM C1177/C1177M-08

The 5/8" GlasRoc Sheathing meets the requirements as specified in ASTM C1177/C1177M-08

1. Except as provided for in Florida Building Code Sections 2603.4.1 and 2603.9



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Table 2 - ASTM E330 Test Results

| Report       | Product                | Specimen # | Length (in.) | Width (in.) | Thickness (in.) | Panel Direction <sup>5</sup> | Frame Type                   | Frame Stud Spacing (in.) | Fastener Type                     | Fastener Spacing <sup>2</sup> (in.) | Ultimate Design Pressure Load <sup>1</sup> (psf) | Allowable Design Pressure Load <sup>1</sup> (psf) |
|--------------|------------------------|------------|--------------|-------------|-----------------|------------------------------|------------------------------|--------------------------|-----------------------------------|-------------------------------------|--------------------------------------------------|---------------------------------------------------|
| 0554-0906-09 | 1/2" GlasRoc Sheathing | 1          | 48           | 48          | 1/2"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 16 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 161                                              | 53.7                                              |
|              |                        | 2          | 48           | 48          | 1/2"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 16 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 134.9                                            | 45.0                                              |
|              |                        | 3          | 48           | 48          | 1/2"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 16 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 105                                              | 35.0                                              |
|              | 5/8" GlasRoc Sheathing | 4          | 48           | 48          | 5/8"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 16 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 182.51                                           | 60.8                                              |
|              |                        | 5          | 48           | 48          | 5/8"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 16 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 149.32                                           | 49.8                                              |
|              |                        | 6          | 48           | 48          | 5/8"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 16 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 146.16                                           | 48.7                                              |
|              | 1/2" GlasRoc Sheathing | 7          | 48           | 48          | 1/2"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 12 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 240                                              | 80.0                                              |
|              |                        | 8          | 48           | 48          | 1/2"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 12 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 225                                              | 75.0                                              |
|              |                        | 9          | 48           | 48          | 1/2"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 12 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 127.5                                            | 42.5                                              |
|              | 5/8" GlasRoc Sheathing | 10         | 48           | 48          | 5/8"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 12 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 225                                              | 75.0                                              |
|              |                        | 11         | 48           | 48          | 5/8"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 12 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 240                                              | 80.0                                              |
|              |                        | 12         | 48           | 48          | 5/8"            | Horizontal                   | 2" x 6" (18 ga.) steel studs | 12 o.c.                  | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 180                                              | 60.0                                              |



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1. Allowable Load - Average Ultimate Load/3 (Factor of Safety = 3)
2. Specification of fasteners for a specific design is the responsibility of the design professional of record.
3. Fastener spacing applies to perimeter and in-field fasteners.
4. Nails and screws must be installed with a minimum edge distance of 3/8".
5. Vertical Direction indicates that the long edge of the panel is parallel to the studs. Horizontal Direction indicates that the short edge of the panel is parallel to the studs.



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## Table 3, 4 and 5 Analysis Methods

ASCE 7-16, Components and Cladding: 30.2 GENERAL REQUIREMENTS

30.2.1 Wind Load Parameters Specified in Chapter 26. The following wind load parameters are specified in Chapter 26:

- Basic wind speed,  $V$  (Section 26.5).
- Wind directionality factor,  $K_d$  (Section 26.6).
- Exposure category (Section 26.7).
- Topographic factor,  $K_{zt}$  (Section 26.8).
- Ground elevation factor,  $K_e$  (Section 26.9)
- Velocity pressure exposure coefficient,  $K_z$  or  $K_h$  (Section 26.10.1); Velocity pressure,  $q_z$  (Section 26.10.2)
- Gust-effect factor (Section 26.11).
- Enclosure classification (Section 26.12).
- Internal pressure coefficient,  $(GC_{pi})$  (Section 26.13).

$$q_z = 0.00256 K_z K_{zt} K_d K_e V^2 \quad (\text{Equation 26.10-1})$$

where:

$K_z$  = velocity pressure exposure coefficient, see Section 26.10.1.

$K_{zt}$  = topographic factor, see Section 26.8.2.

$K_d$  = wind directionality factor, see Section 26.6.

$K_e$  = ground elevation factor, see Section 26.9.

$V$  = basic wind speed, see Section 26.5.

$q_z$  = velocity pressure at height  $z$ .

From 2020 FBC. The following defines the relationship between the Design Pressure and Ultimate Pressure.

When comparing as-tested design pressure (psf) with design loads (psf) based on Basic Wind Speed (Vult in MPH), the resulting loading can be reduced by a factor of 0.6.



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Using Equation 16.33 below, the  $V_{asd}$  (design wind speed) is based on the  $V_{ult}$  (basic wind speed) x the square root of 0.6.

1609.1.3 Testing to allowable or nominal loads. Where testing for wind load resistance is based on allowable or nominal wind loads, the design wind loads determined in accordance with ASCE 7 or Section 1609 are permitted to be multiplied by 0.6 for the purposes of the wind-load resistance testing.

1609.3.1 Wind speed conversion. Where required, the ultimate design wind speeds of Figures 1609.3(1), 1609.3(2), 1609.3(3) and 1609.3(4) shall be converted to nominal design wind speeds,  $V_{asd}$ , using Table 1609.3.1 or Equation 16-33.

$$V_{asd} = V_{ult} \sqrt{0.6}$$

(Equation 16-33)

where:

$V_{asd}$  = Nominal design wind speed applicable to methods specified in Exceptions 4 and 5 of Section 1609.1.1.

$V_{ult}$  = Ultimate design wind speed determined from Figure 1609.3(1), 1609.3(2), 1609.3(3) or 1609.3(4).

From ASCE 7-16, Components and Cladding

30.3.2 Design Wind Pressures. Design wind pressures on C&C elements of low-rise buildings and buildings with  $h \leq 60$  ft

( $h \leq 18.3$  m) shall be determined from the following equation:

$$\text{Design Wind Pressure (PSF)} = qz * (GCp + GCpi) \quad (\text{Equation 30.3-1})$$

$$qz = 0.00256 Kz Kzt Kd Ke V^2 \quad (\text{Equation 26.10-1})$$

Combining equations 26.10-1 with 30.3-1 yields the following that can be used to define a coefficient (let's call it  $qz$  Coefficient) that contains known values.

$$qz \text{ Coefficient} = 0.00256 * Kz * Kzt * Kd * Ke * (GCp + GCpi) \quad \text{Table 4 determines coefficient based on this equation}$$

( $GCp + GCpi$ ) are added to combine velocity pressure coefficients as the internal coefficient is a plus and minus value.

The following equation is for Basic Wind Speed ( $V$  or  $V_{ult}$ ) which is our unknown.

$$(V^2) * qz \text{ Coefficient} = \text{Ultimate Design Pressure (psf)}$$



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However, since the test results are based on Vasd, and as noted in Section 1609.1.3 of the 2020 FBC, wind loads based on Vult can be multiplied by 0.6 to arrive at Vasd based design loads (psf), the following can be written.

$$DPasd = Dpult \times 0.6 \quad \text{which equals} \quad 1.67 DPasd = Dpult$$

(The previous product approval used the factor 1.6 for the above equation. That will be maintained for consistency.)

$$\text{Load Factor (1.6) * Design Wind Pressure (PSF)} = qz * (GCp + GCpi) = qz \text{ Coefficient}$$

$$qz \text{ Coefficient} = 0.00256 * Kz * Kzt * Kd * Ke * (GCp + GCpi) \quad Ke = 1$$

Therefore, the final formula used to create table 5 is:

$$\text{Maximum Basic Wind Speed (Vult)} = [(\text{Load Factor (1.6) * Design Wind Pressure (PSF)}) / qz \text{ Velocity Pressure Coefficient from Table 4}]^{1/2}$$



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Table 5 - Maximum Basic Wind Speed

ASCE 7-16 Components & Cladding Method

Maximum Ultimate Wind Speed, 3-second gust, based on 2020 FBC

| Product                | Panel Size & Direction <sup>7</sup> | Fastener Type                     | Fastener Spacing <sup>2</sup> (in.) | Frame Type                   | Stud Spacing (in.) | Allowable Design Pressure Load <sup>1</sup> (psf) | Building Height (ft) | Basic Wind Speed (MPH) |        |        |             |        |        |
|------------------------|-------------------------------------|-----------------------------------|-------------------------------------|------------------------------|--------------------|---------------------------------------------------|----------------------|------------------------|--------|--------|-------------|--------|--------|
|                        |                                     |                                   |                                     |                              |                    |                                                   |                      | Wall Zone 4            |        |        | Wall Zone 5 |        |        |
|                        |                                     |                                   |                                     |                              |                    |                                                   |                      | Exp. B                 | Exp. C | Exp. D | Exp. B      | Exp. C | Exp. D |
| 1/2" GlasRoc Sheathing | 4' x 4' x 1/2" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 2" x 6" (18 ga.) steel studs | 12 o.c.            | 80                                                | 0 - 15               | 256                    | 233    | 211    | 231         | 209    | 190    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 256                    | 226    | 206    | 231         | 203    | 186    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 256                    | 221    | 203    | 231         | 199    | 182    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 256                    | 217    | 199    | 231         | 195    | 179    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 251                    | 213    | 197    | 226         | 192    | 177    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 246                    | 210    | 194    | 221         | 189    | 175    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 243                    | 208    | 193    | 218         | 187    | 173    |
| 1/2" GlasRoc Sheathing | 4' x 4' x 1/2" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 2" x 6" (18 ga.) steel studs | 12 o.c.            | 75                                                | 50                   | 238                    | 205    | 190    | 214         | 185    | 171    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 0 - 15               | 248                    | 225    | 205    | 223         | 203    | 184    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 248                    | 219    | 200    | 223         | 197    | 180    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 248                    | 214    | 196    | 223         | 193    | 177    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 248                    | 210    | 193    | 223         | 189    | 173    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 243                    | 207    | 190    | 219         | 186    | 171    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 238                    | 204    | 188    | 214         | 183    | 169    |
| 1/2" GlasRoc Sheathing | 4' x 4' x 1/2" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 2" x 6" (18 ga.) steel studs | 12 o.c.            | 42.5                                              | 45                   | 235                    | 202    | 186    | 212         | 181    | 168    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 231                    | 199    | 184    | 208         | 179    | 166    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 0 - 15               | 187                    | 169    | 154    | 168         | 153    | 139    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 187                    | 165    | 150    | 168         | 148    | 135    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 187                    | 161    | 148    | 168         | 145    | 133    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 187                    | 158    | 145    | 168         | 142    | 131    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 183                    | 155    | 143    | 165         | 140    | 129    |
| 5/8" GlasRoc Sheathing | 4' x 4' x 5/8" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 2" x 6" (18 ga.) steel studs | 12 o.c.            | 75                                                | 40                   | 179                    | 153    | 141    | 161         | 138    | 127    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 177                    | 152    | 140    | 159         | 137    | 126    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 174                    | 150    | 139    | 156         | 135    | 125    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 0 - 15               | 248                    | 225    | 205    | 223         | 203    | 184    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 248                    | 219    | 200    | 223         | 197    | 180    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 248                    | 214    | 196    | 223         | 193    | 177    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 248                    | 210    | 193    | 223         | 189    | 173    |
| 5/8" GlasRoc Sheathing | 4' x 4' x 5/8" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 2" x 6" (18 ga.) steel studs | 12 o.c.            | 80                                                | 35                   | 243                    | 207    | 190    | 219         | 186    | 171    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 238                    | 204    | 188    | 214         | 183    | 169    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 235                    | 202    | 186    | 212         | 181    | 168    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 231                    | 199    | 184    | 208         | 179    | 166    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 0 - 15               | 256                    | 233    | 211    | 231         | 209    | 190    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 256                    | 226    | 206    | 231         | 203    | 186    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 256                    | 221    | 203    | 231         | 199    | 182    |
| 5/8" GlasRoc Sheathing | 4' x 4' x 5/8" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 2" x 6" (18 ga.) steel studs | 12 o.c.            | 60                                                | 30                   | 256                    | 217    | 199    | 231         | 195    | 179    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 251                    | 213    | 197    | 226         | 192    | 177    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 246                    | 210    | 194    | 221         | 189    | 175    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 243                    | 208    | 193    | 218         | 187    | 173    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 238                    | 205    | 190    | 214         | 185    | 171    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 0 - 15               | 222                    | 201    | 183    | 200         | 181    | 165    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 222                    | 196    | 179    | 200         | 176    | 161    |
| 5/8" GlasRoc Sheathing | 4' x 4' x 5/8" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 2" x 6" (18 ga.) steel studs | 12 o.c.            | 60                                                | 25                   | 222                    | 191    | 175    | 200         | 172    | 158    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 222                    | 188    | 172    | 200         | 169    | 155    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 217                    | 185    | 170    | 196         | 166    | 153    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 213                    | 182    | 168    | 192         | 164    | 151    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 210                    | 180    | 167    | 189         | 162    | 150    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 206                    | 178    | 165    | 186         | 160    | 148    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 0 - 15               | 222                    | 201    | 183    | 200         | 181    | 165    |



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Table 5 - Maximum Basic Wind Speed

ASCE 7-16 Components & Cladding Method

Maximum Ultimate Wind Speed, 3-second gust, based on 2020 FBC

| Product                | Panel Size & Direction <sup>7</sup> | Fastener Type                     | Fastener Spacing <sup>2</sup> (in.) | Frame Type                   | Stud Spacing (in.) | Allowable Design Pressure Load <sup>1</sup> (psf) | Building Height (ft) | Basic Wind Speed (MPH) |        |        |             |        |        |
|------------------------|-------------------------------------|-----------------------------------|-------------------------------------|------------------------------|--------------------|---------------------------------------------------|----------------------|------------------------|--------|--------|-------------|--------|--------|
|                        |                                     |                                   |                                     |                              |                    |                                                   |                      | Wall Zone 4            |        |        | Wall Zone 5 |        |        |
|                        |                                     |                                   |                                     |                              |                    |                                                   |                      | Exp. B                 | Exp. C | Exp. D | Exp. B      | Exp. C | Exp. D |
| 1/2" GlasRoc Sheathing | 4' x 4' x 1/2" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 2" x 6" (18 ga.) steel studs | 16 o.c.            | 53.7                                              | 0 - 15               | 210                    | 191    | 173    | 189         | 171    | 156    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 210                    | 185    | 169    | 189         | 167    | 152    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 210                    | 181    | 166    | 189         | 163    | 149    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 210                    | 177    | 163    | 189         | 160    | 147    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 206                    | 175    | 161    | 185         | 157    | 145    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 201                    | 172    | 159    | 181         | 155    | 143    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 199                    | 171    | 158    | 179         | 154    | 142    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 195                    | 168    | 156    | 176         | 151    | 140    |
| 1/2" GlasRoc Sheathing | 4' x 4' x 1/2" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 2" x 6" (18 ga.) steel studs | 16 o.c.            | 45                                                | 0 - 15               | 192                    | 174    | 158    | 173         | 157    | 143    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 192                    | 169    | 155    | 173         | 153    | 139    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 192                    | 166    | 152    | 173         | 149    | 137    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 192                    | 162    | 149    | 173         | 146    | 134    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 188                    | 160    | 147    | 169         | 144    | 133    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 184                    | 158    | 146    | 166         | 142    | 131    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 182                    | 156    | 144    | 164         | 141    | 130    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 179                    | 154    | 143    | 161         | 139    | 128    |
| 1/2" GlasRoc Sheathing | 4' x 4' x 1/2" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 2" x 6" (18 ga.) steel studs | 16 o.c.            | 35                                                | 0 - 15               | 169                    | 154    | 140    | 153         | 138    | 126    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 169                    | 149    | 136    | 153         | 135    | 123    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 169                    | 146    | 134    | 153         | 132    | 121    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 169                    | 143    | 132    | 153         | 129    | 118    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 166                    | 141    | 130    | 149         | 127    | 117    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 163                    | 139    | 128    | 146         | 125    | 116    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 161                    | 138    | 127    | 145         | 124    | 115    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 158                    | 136    | 126    | 142         | 122    | 113    |
| 5/8" GlasRoc Sheathing | 4' x 4' x 5/8" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 4 o.c.                              | 2" x 6" (18 ga.) steel studs | 16 o.c.            | 60.8                                              | 0 - 15               | 223                    | 203    | 184    | 201         | 182    | 166    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 223                    | 197    | 180    | 201         | 177    | 162    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 223                    | 193    | 177    | 201         | 173    | 159    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 223                    | 189    | 174    | 201         | 170    | 156    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 219                    | 186    | 171    | 197         | 167    | 154    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 214                    | 183    | 169    | 193         | 165    | 152    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 212                    | 182    | 168    | 190         | 163    | 151    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 208                    | 179    | 166    | 187         | 161    | 149    |
| 5/8" GlasRoc Sheathing | 4' x 4' x 5/8" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 6 o.c.                              | 2" x 6" (18 ga.) steel studs | 16 o.c.            | 49.8                                              | 0 - 15               | 202                    | 183    | 167    | 182         | 165    | 150    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 202                    | 178    | 163    | 182         | 160    | 146    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 202                    | 174    | 160    | 182         | 157    | 144    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 202                    | 171    | 157    | 182         | 154    | 141    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 198                    | 168    | 155    | 178         | 151    | 140    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 194                    | 166    | 153    | 175         | 149    | 138    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 192                    | 164    | 152    | 172         | 148    | 137    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 188                    | 162    | 150    | 169         | 146    | 135    |
| 5/8" GlasRoc Sheathing | 4' x 4' x 5/8" Horizontal           | #6 x 1-1/4" FH Self-Tapping Screw | 8 o.c.                              | 2" x 6" (18 ga.) steel studs | 16 o.c.            | 48.7                                              | 0 - 15               | 200                    | 181    | 165    | 180         | 163    | 148    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 20                   | 200                    | 176    | 161    | 180         | 159    | 145    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 25                   | 200                    | 173    | 158    | 180         | 155    | 142    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 30                   | 200                    | 169    | 155    | 180         | 152    | 140    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 35                   | 196                    | 166    | 153    | 176         | 150    | 138    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 40                   | 192                    | 164    | 151    | 173         | 148    | 136    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 45                   | 189                    | 162    | 150    | 170         | 146    | 135    |
|                        |                                     |                                   |                                     |                              |                    |                                                   | 50                   | 186                    | 160    | 148    | 167         | 144    | 134    |

