



## Testing Update for: (TCNA-0219-21) (TCNA-0220-21)

as of 10/19/2021

### ANSI A118.10: Green Barrier – 40 mils wet thickness (TCNA-0219-21)

| Test Designation |                                                                                                                                                           | Test Description  | Evaluation                            | ANSI Specification                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|------------------------------------------|
| 4.1              |                                                                                                                                                           | Mold Growth       | Membrane does not support mold growth | “Membrane shall not support mold growth” |
| 4.2              |                                                                                                                                                           | Seam Strength     | 116 lbf                               | 16 lbf/2" width                          |
| 4.3              |                                                                                                                                                           | Breaking Strength | 286 PSI                               | 170 PSI minimum                          |
| 4.4              | Dimensional Stability<br>Sample 1, direction 1 (158°F)<br>Sample 1, direction 2 (158°F)<br>Sample 2, direction 1 (-15°F)<br>Sample 2, direction 2 (-15°F) |                   | -0.37%<br>-0.33%<br>-0.08%<br>-0.08%  | 0.7% max. length change                  |
| 4.5              | Waterproofness                                                                                                                                            |                   | No moisture penetration               | No moisture penetration after 48 hrs     |
| 5.0              | Shear Strength to Ceramic Tile and Cement Mortar                                                                                                          |                   |                                       |                                          |
| 5.3              | 7-Day shear strength                                                                                                                                      |                   | 147 PSI                               | > 50 PSI                                 |
| 5.4              | 7-Day water immersion shear strength                                                                                                                      |                   | 101 PSI                               | > 50 PSI                                 |
| 5.5              | 4-Week shear strength                                                                                                                                     |                   | 243 PSI                               | > 50 PSI                                 |

### ANSI A118.10: Green Barrier – 50 mils wet thickness (TCNA-0219-21)

| Test Designation |                                                                                                                                                           | Test Description  | Evaluation                            | ANSI Specification                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|------------------------------------------|
| 4.1              |                                                                                                                                                           | Mold Growth       | Membrane does not support mold growth | “Membrane shall not support mold growth” |
| 4.2              |                                                                                                                                                           | Seam Strength     | 112 lbf                               | 16 lbf/2" width                          |
| 4.3              |                                                                                                                                                           | Breaking Strength | 256 PSI                               | 170 PSI minimum                          |
| 4.4              | Dimensional Stability<br>Sample 1, direction 1 (158°F)<br>Sample 1, direction 2 (158°F)<br>Sample 2, direction 1 (-15°F)<br>Sample 2, direction 2 (-15°F) |                   | -0.21%<br>-0.23%<br>-0.05%<br>-0.09%  | 0.7% max. length change                  |
| 4.5              | Waterproofness                                                                                                                                            |                   | No moisture penetration               | No moisture penetration after 48 hrs     |
| 5.0              | Shear Strength to Ceramic Tile and Cement Mortar                                                                                                          |                   |                                       |                                          |
| 5.3              | 7-Day shear strength                                                                                                                                      |                   | 161 PSI                               | > 50 PSI                                 |
| 5.4              | 7-Day water immersion shear strength                                                                                                                      |                   | 103 PSI                               | > 50 PSI                                 |
| 5.5              | 4-Week shear strength                                                                                                                                     |                   | 277 PSI                               | > 50 PSI                                 |

**ANSI A118.12: Green Barrier – 60 mils wet thickness (TCNA-0220-21)**

| Test Designation | Test Description                                                                                         |                                                                                                                                                            | Evaluation                                                                                                                                                                              | ANSI Specification                                                         |
|------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 4.1              | Mold Growth                                                                                              |                                                                                                                                                            | Does not support mold growth                                                                                                                                                            | “Membrane shall not support mold growth.”                                  |
| 5.1              | Shear Strength to Ceramic Tile and Cement Mortar*                                                        |                                                                                                                                                            |                                                                                                                                                                                         |                                                                            |
| 5.1.3            | 7-Day shear strength                                                                                     |                                                                                                                                                            | 158 PSI                                                                                                                                                                                 | > 50 PSI                                                                   |
| 5.1.4            | 7-Day water immersion shear strength                                                                     |                                                                                                                                                            | 93 PSI                                                                                                                                                                                  | > 50 PSI                                                                   |
| 5.1.5            | 4-Week shear strength<br>Shear strength @ 0.0625 in. deflection<br>Shear Strength @ 0.125 in. deflection |                                                                                                                                                            | 225 PSI<br>114 PSI<br>205 PSI                                                                                                                                                           | > 50 PSI<br>Standard<br>Performance: 20 PSI<br>High Performance:<br>20 PSI |
| 5.2              | Point Load Test                                                                                          |                                                                                                                                                            |                                                                                                                                                                                         |                                                                            |
|                  | Sample 1                                                                                                 |                                                                                                                                                            | 1031 lbf                                                                                                                                                                                | >1000 lbf                                                                  |
|                  | Sample 2                                                                                                 |                                                                                                                                                            | 1082 lbf                                                                                                                                                                                | >1000 lbf                                                                  |
|                  | Sample 3                                                                                                 |                                                                                                                                                            | 1047 lbf                                                                                                                                                                                | >1000 lbf                                                                  |
| 5.4              | System Crack Resistance Test                                                                             |                                                                                                                                                            |                                                                                                                                                                                         |                                                                            |
|                  | Specimen 1                                                                                               | The specimen reached a gap opening of greater than 1/8" without tile failure.<br><br><i>Note: 3 grout joints cracked at a gap opening of 0.128" (1/8")</i> | Standard performance: Tile failure occurs after 1/16" specimen gap opening, but before 1/8" gap opening.<br>High performance: Tile failure does not occur by 1/8" specimen gap opening. |                                                                            |
|                  | Specimen 2                                                                                               | The specimen reached a gap opening of greater than 1/8" without tile failure.<br><br><i>Note: 3 grout joints cracked at a gap opening of 0.128" (1/8")</i> | Standard performance: Tile failure occurs after 1/16" specimen gap opening, but before 1/8" gap opening.<br>High performance: Tile failure does not occur by 1/8" specimen gap opening. |                                                                            |
|                  | Specimen 3                                                                                               | The specimen reached a gap opening of greater than 1/8" without tile failure.<br><br><i>Note: 3 grout joints cracked at a gap opening of 0.128" (1/8")</i> | Standard performance: Tile failure occurs after 1/16" specimen gap opening, but before 1/8" gap opening.<br>High performance: Tile failure does not occur by 1/8" specimen gap opening. |                                                                            |