



TECHNICAL MEMO

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| To: | CT Ceilings Customers | Date: | September 27, 2018 |
| From: | Technical Services | # Of Pages: | Seven |
| RE: | Products suitable for adhesive application of Ecophon Focus B, F & SQ acoustic panels | | |

To Whom It May Concern:

CertainTeed Ceilings has gained approval from an adhesive manufacturer for compatibility of their product with Ecophon Focus B, F or Ecophon Focus SQ acoustic panels. Please contact them with any questions regarding recommended adhesive installation method, SDS or vendor location.

Install in conditions that do not exceed 70% relative humidity and 77-degrees Fahrenheit

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|------------------|---|
| COMPANY | Franklin International |
| PRODUCT | <u>Titebond[®]</u> <u>Solvent Free Acoustical Ceiling Tile Adhesive</u> |
| TELEPHONE | 800-347-4583 |
| WEBSITE | http://www.titebond.com/product.aspx?id=8f89eeb0-1722-4e99-a25a-06a268db47d0 |

Should you have any questions regarding this information please don't hesitate to contact CertainTeed Ceilings Technical Services.

Regards,
CertainTeed Ceilings

Robert Marshall
Sr. Manager, Technical Services
T: 610-893-5906
E: ceilingstechnicalservices@certainteed.com

TECHNICAL MEMO

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| Subject: | Primary installation methodology using Titebond Acoustical Ceiling Tile Adhesive for: Ecophon Focus B (600x 600mm), Focus F & Focus SQ (600x 600, 600x 1200mm) | | |
| Date: | January 10, 2018 | Pages: | One |
| From: | CertainTeed Technical Services | Tel: | 866-272-5906 |

Application Temperature:

- Over 50° F for adhesive and substrates

Service Temperature:

- 0°F to 120°F

Method of application:

- Mason's trowel

Working Surfaces:

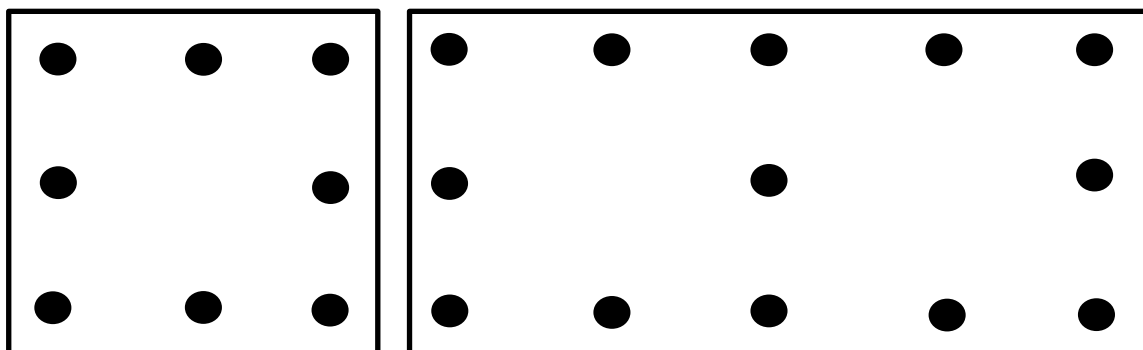
- Surfaces must be dry and free from any material that may deter adhesion.
- Using the "butter" method, spread a thin layer of adhesive to cover a large area of each corner of the tile and the middle edge.
- Then apply the adhesive in 1" to 1-1/2" mounds (golf ball size).
- Place the mounds 2-3 inches in from the corners
 - Eight mounds for 2x2 / Thirteen mounds for 2x4 (as shown in sketches below)
- Immediately press the tile into position, working the tile back and forth approximately a 1/2" to flatten the mounds of adhesive.
 - Adhesive must be flattened to a mound 3/16" to 3/8" thick and 2-1/2" in diameter.
- When installing interlocking tiles, do not slide tile into groove of adjacent tile until it has been positioned to its proper level.

Clean Up:

- Tools and excess adhesive may be cleaned with water while adhesive is wet. If dried, tools and adhesive may be cleaned with mineral spirits or equivalent solvent.
 - Follow solvent vendor's precautions when using solvents.

Note:

- Test solvent on an out-of-the-way area to make sure it will not mar or attack surface.



(Sketches are not-to-scale)

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| Subject: | Alternative installation methodology using Titebond Acoustical Ceiling Tile Adhesive: Ecophon Focus B (600x 600mm), Focus F & Focus SQ (600x 600, 600x 1200mm) | | |
| Date: | January 10, 2018 | Pages: | One |
| From: | CertainTeed Technical Services | Tel: | 866-272-8721 |

An alternative method for installation of the above referenced Ecophon products is detailed below. As with any glue-up installation, it is strongly recommended that before the main installation commences, the substrate be tested to see if there exists good panel/substrate compatibility.

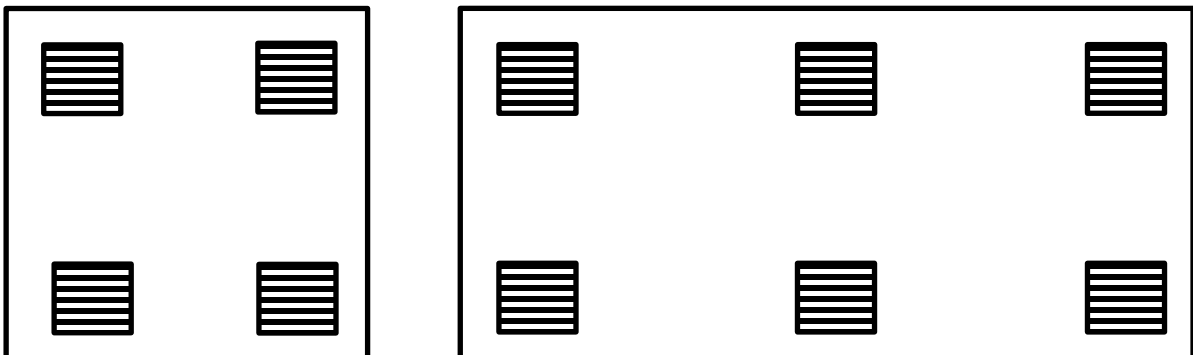
Tool required:

- Metal or plastic trowel with ¼-inch x ¼-inch toothing on at least one edge

Installation method:

- Temperature of adhesive and substrate must be over 50-degrees F
- Place the panel face-down on a flat work surface taking care not to damage the finished surface.
- Scoop a quantity of Titebond Acoustical Ceiling Tile Adhesive from the container with the trowel.
- Spread adhesive in prescribed locations depending on panel size
 - Six for 2x4 / four for 2x2 (as shown in sketches below)
 - Each application should be a minimum of 5-inches x 5-inches and begin approximately 1.5-inches off the panel edge
- Return to each adhesive spot and use the toothed end of the trowel to create ridges over the entirety of each adhesive spot.
- Immediately lift panel into place and press firmly against the substrate taking care to move the panel slightly in a horizontal direction (back-forth) to set the adhesive
 - The hold should be almost immediate.
 - If it is not, re-evaluate the installation application and the substrate

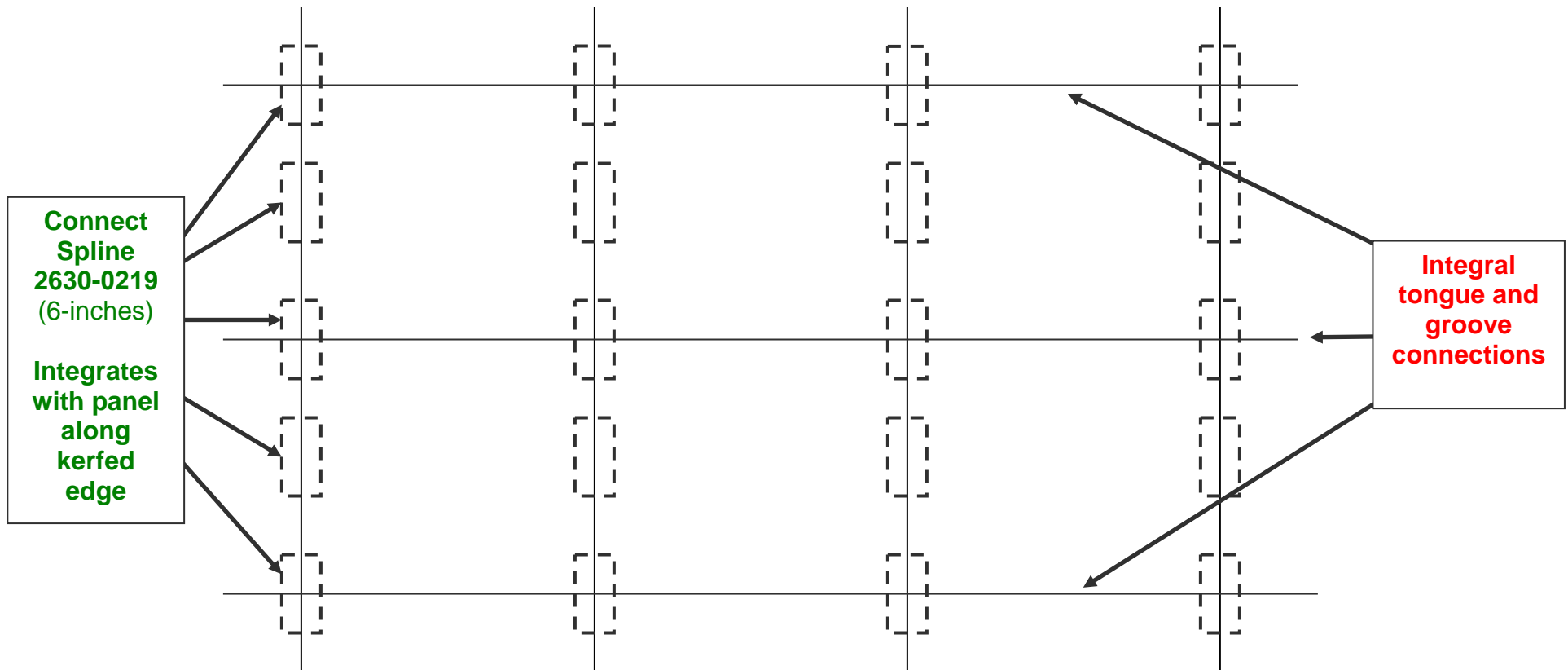
The surface to which the Ecophon product is to be attached must be flat to a tolerance of 3/16-inch in a 10-foot radius. For surfaces deviating from this tolerance, we recommend using the Primary Installation Instructions detailed at the beginning of this document.



(Sketches are not-to-scale)

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Installation of Focus F (600x600 mm) Recommended location of splines for glue-up application

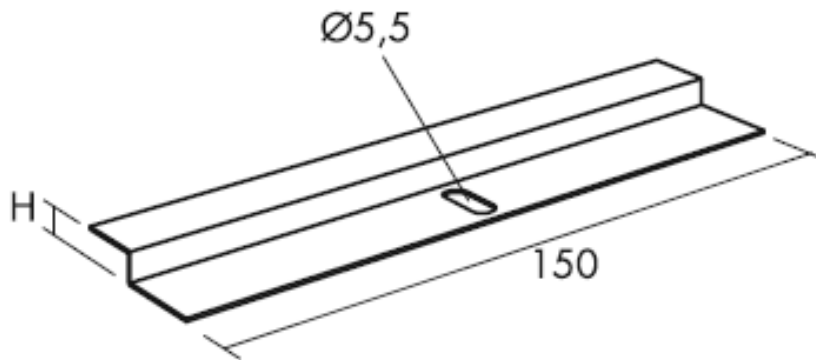


These drawings show typical conditions for installing the CertainTeed Ceilings product shown. They should not be construed as a substitute for an architectural or engineering design and don't reflect the unique requirements of local codes, laws, statutes or regulations that may be applicable for a specific installation. CertainTeed Ceilings assumes no liability for the accuracy or completeness of the drawings for a specific installation or the fitness of the drawings for a particular purpose. The user is advised to consult with local licensed design professionals in order to assure compliance with all legal requirements. CertainTeed Ceilings is not licensed to provide professional engineering or architectural services.

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|-----------------|--|---------------|--------------|
| Subject: | Ecophon Connect Direct Fixing Plate for Ecophon Focus F installations | | |
| Date: | February 8, 2016 | Pages: | One |
| From: | Robert Marshall | Tel: | 610-893-5906 |
| Email: | Robert.L.Marshall@saint-gobain.com | | |

Item number: 2630 0149
Pcs/carton: 100
Height: 0.6 mm \approx 1/4-inches
Length: 150 mm \approx 6.0-inches
Diameter of screw slot: 5.50 mm \approx 7/32-inches

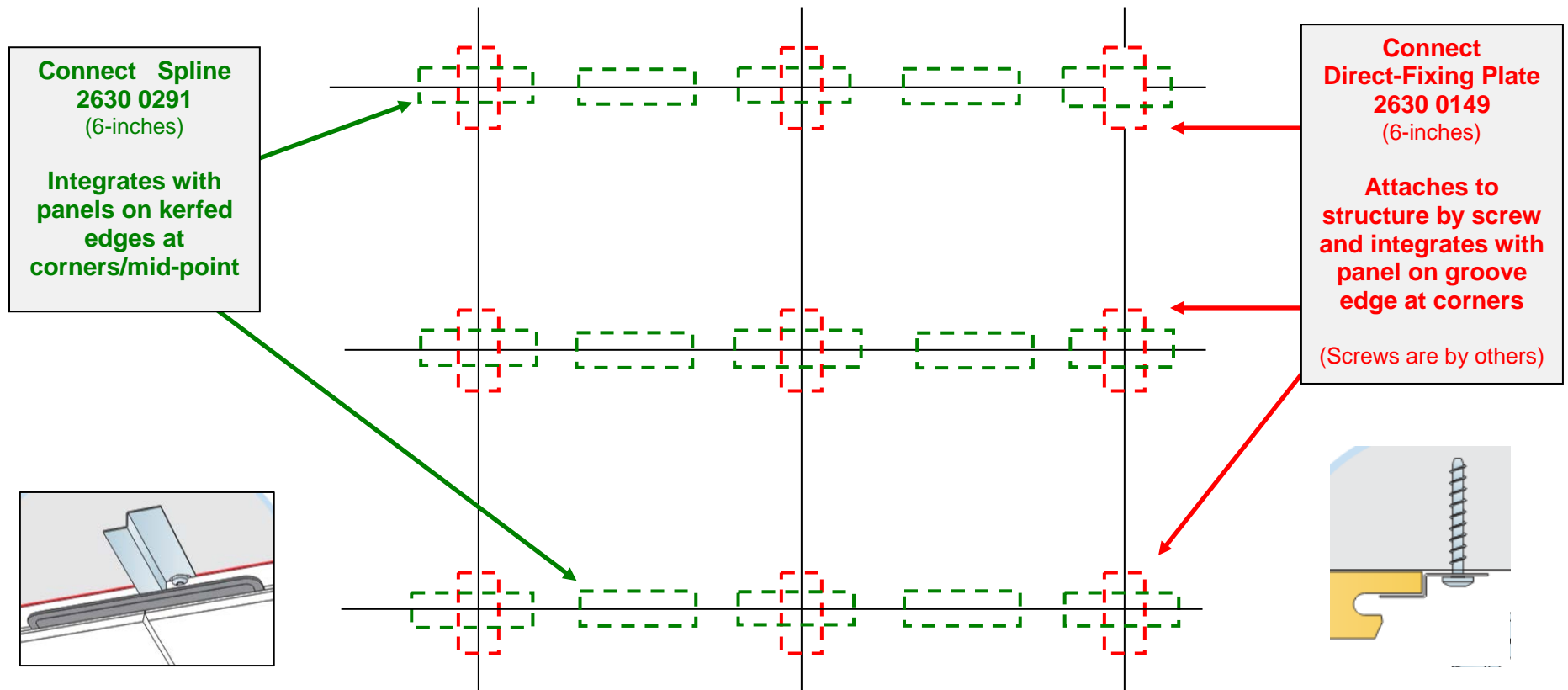


Regards,
CertainTeed Ceilings

Robert L. Marshall
Manager
Marketing Technical Services

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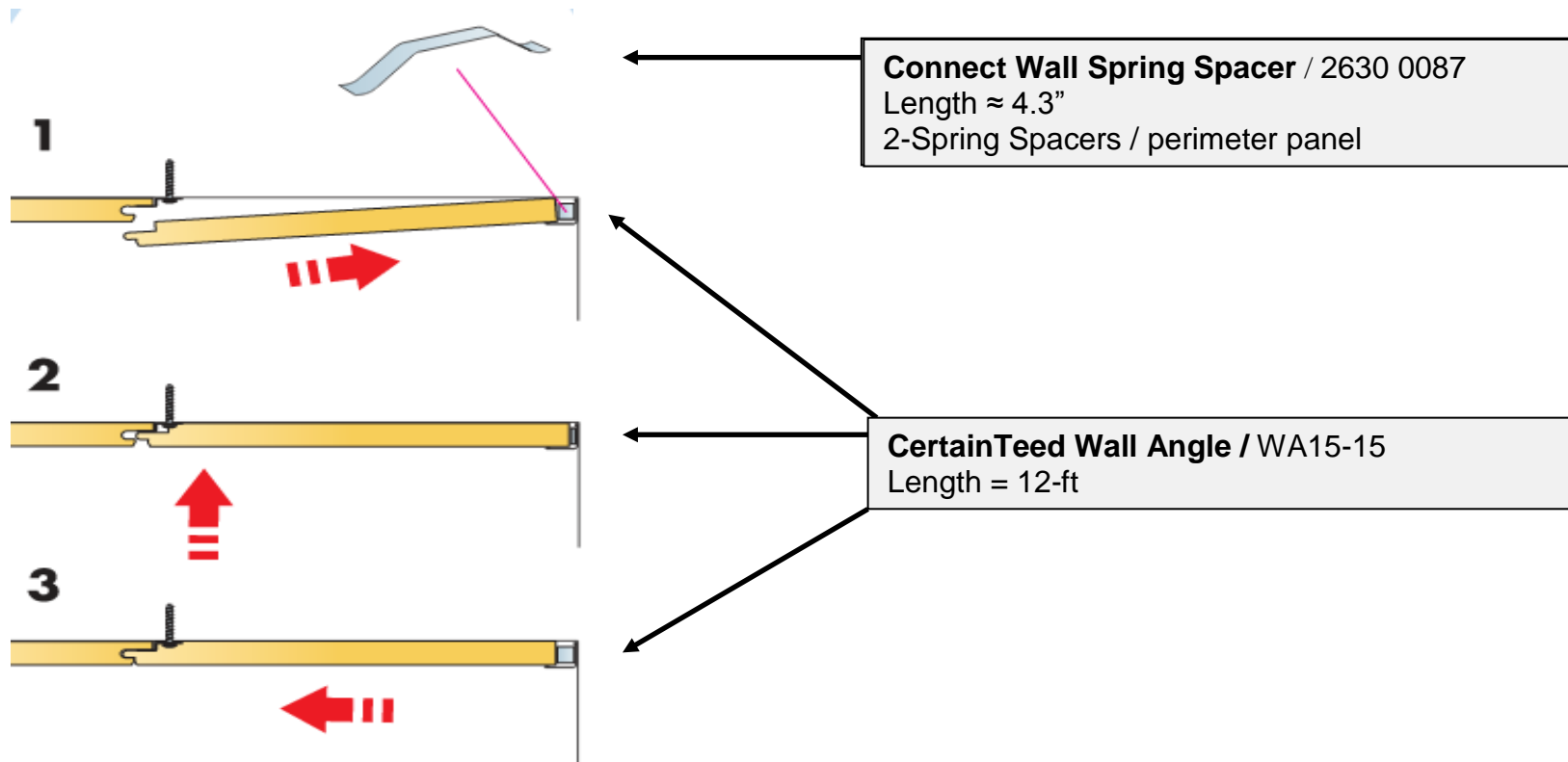
Installation of Focus F (600 x 600 mm) by direct fixing bracket



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Installation of Focus F (600 x 600 mm)
by direct fixing bracket / perimeter treatment



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