# Carpets Inter®

## Installation Guideline

Modular Carpet Tile

**EcoSquare®**, Reinforced Recycled Backing

Note:
Failure to read this Installation Guideline and the recommendations contained within this document may result in issues arising that may null and void the product warranty.

**[ Video for Installation of EcoSquare back modular Carpet is available upon request].**

February 2020
(Supersedes all previous Guidelines)

# PREFACE

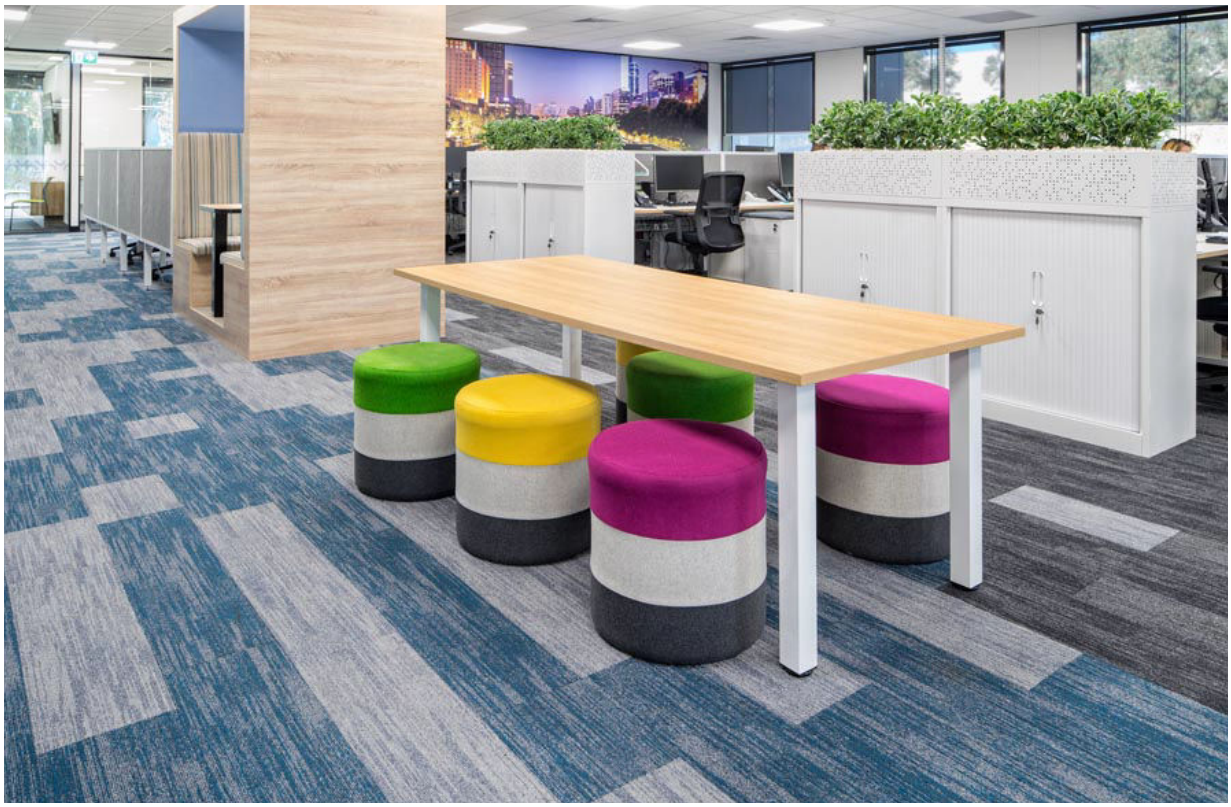
These guidelines are to be read in conjunction with the following standards:

a. AS/NZS2455.1: 2007 Textile floor coverings-Installation practice : Part 1: General
b. AS/NZS2455.2: 2007 Textile floor coverings-Installation practice: Part 2: Carpet Tiles
c. CRI 104 – Sept 2015 Standard for Installation of commercial carpet
d. BS 5325 Installation of textile floor coverings - Code of practice

## EcoSquare® Modular Carpet Tile

EcoSquare® is a modular floor covering system that is the perfect choice to enhance the aesthetic appeal of accommodation and working environments. This new generation backing is manufactured with 63.5% recycled content and is 100% recyclable.

This practical, hard wearing and versatile modular carpet is easy to install and maintain. It is the ideal solution for carpeting commercial facilities, such as offices, education, healthcare and public spaces subjected to heavy traffic flow.



*Credit - Contour Commercial Interiors*

# PREPARATION

1. Substrate:

   EcoSquare® modules can be installed onto level screed or raised access floors and onto stairs (refer Appendix B); however the product is unsuitable for installation onto vertical surfaces (i.e.: walls). Before installation, the floor surface must be clean, dry and free of dust. The floor must be properly cured, level and smooth. All concrete floors should be tested for moisture and alkalinity (pH) at several locations prior to beginning the installation. Concrete floors should be tested for moisture in accordance with ASTM F1869 or ASTM F2170. Moisture should not exceed 5 lbs./1000 ft2/24 hrs. for the Vapor Emission Rate (MVER) (ASTM F1869) or 75% RH for the Relative Humidity (ASTM F2170). The surface of a concrete floor should have a pH value of between 7 to 9 in accordance with the ASTM F710.

   **Should the Relative Humidity or Alkalinity reading be above tolerance, please refer to Appendix A and consult your Carpets Inter representative for professional advice before proceeding to install.**

2. Pattern & Layout:

   Check the product code(s) on the delivered cartons match the delivery order and that the quantity of each item is as per the quantity demarcated on the installation schematic. Open the carton and confirm that the product inside matches the visual schematic provided, and ensure that difference dye batch of EcoSquare are not be mixed in same area. Please pay special attention to the tile pattern for placing the correct item in the appointed location and the specified installation configuration to achieve the desired appearance for the product being installed. (e.g., Monolithic, Checkerboard, Vertical Brick, etc.,…).

## 3. Conditioning of Product:

The environment of the space to be installed should be maintained within the temperature range of 10-35 degrees C with a relative humidity (RH) of between 40% to 60% for a minimum period of 2 to 3 days prior to, during and after installation. Heating and Air Conditioning systems should be operational within the space during this period. The subfloor surface temperature should be between 18-29 degrees C. All carpet tiles must be removed from the cartons and allowed to adjust to the ambient temperature for at least 24 hours prior to installation.

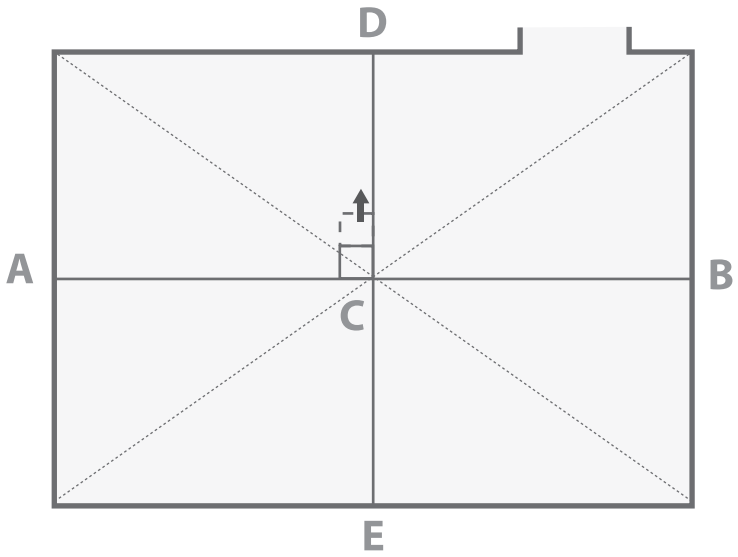
# INSTALLATION

The Installer should measure the location(s) to be carpeted match the planning and estimation drawings used to calculate the supplied material quantity.

## 1. Setting Out

### 1.1: Process – All Modules:

Measure and locate the center (datum) line within the space to be installed by using crossed diagonals. The installation process will begin from the center of the room. This will achieve symmetry and equal sized fillers to opposing walls. Find out the side of the longer wall and mark out a line parallel to the longer wall running through the center C (AB). Then mark a line (DE) to pass through center 'C' at a 90° right angle (perpendicular) to line AB (see diagram below).



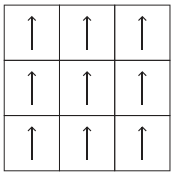

### 1.2: Direction of Lay:

Directional arrows are printed on the underside of each module. Determine the direction of lay before commencement, ensuring that all modules are laid into the applied adhesive with the arrow facing in the same direction. Obviously some pattern styles are linear to enable this approach, however for configurations such as checkerboard (two directional) or random (4 directional), follow the product guideline accordingly (Please consult the appointed interior architect and/or designer before proceeding).

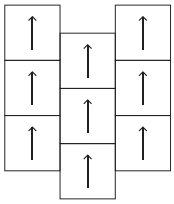
## 1.3: Configuration:

### 1.3.1: Square Module:

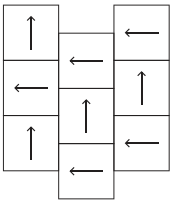
**STANDARD SQUARE SIZE INSTALLATION METHOD**



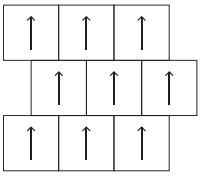
Monolithic



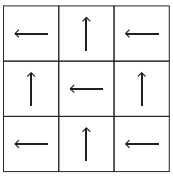
Vertical Brick



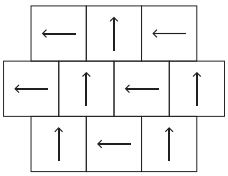
Vertical Stair Step



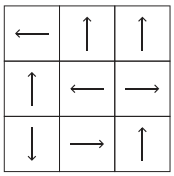
Horizontal Brick



Checkerboard



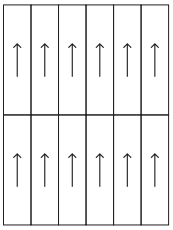
Horizontal Stair Step



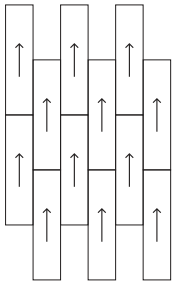
Random

### 1.3.2: Plank Module:

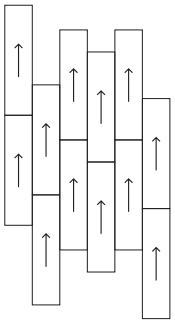
**STANDARD PLANK SIZE INSTALLATION METHOD**



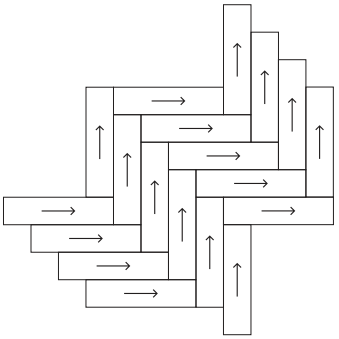
Monolithic



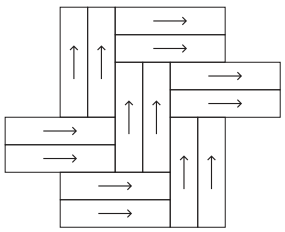
Vertical Brick



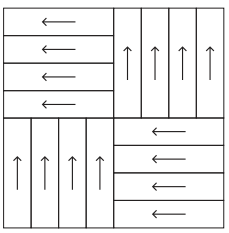
Random Vertical Brick



Herringbone



Double Herringbone

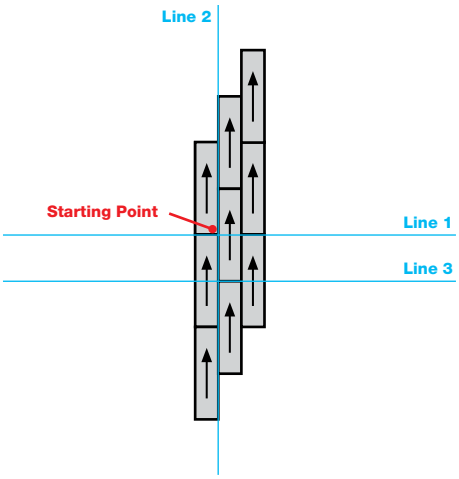


Checkerboard

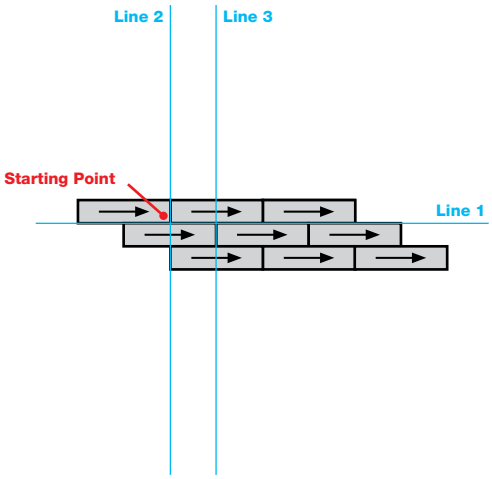
## Brick:

Brick configuration is a popular installation method that is easy to install and results in an effect similar to LVT or wood flooring. It may be uniform or alternatively laid random offset.

**Vertical Brick**




**Horizontal Brick**



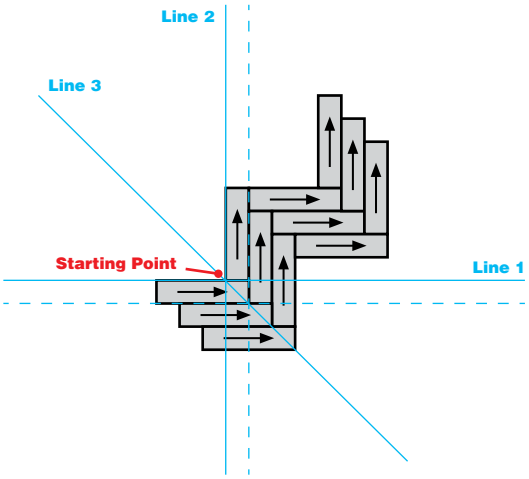

- At the center starting point, draw a line parallel to the longest wall (Line 1), a vertical line (Line 2) at a right angle to the first line and a line (Line 3) 500 mm. from and parallel to the starting line; Line 1 or 2, to demarcate working lines.
- Make a dry layout of the plank tile configuration from the center line to the wall running parallel to the long direction of the planks to confirm a balanced layout.
- Installation must start from the center point. It is critical in laying the initial row correctly aligned with the working lines, as they are the foundation for the rest of the installation and crucial to the end-result.
- Lay the next row by staggering the plank tile end by half the length of the plank to achieve a symmetrical look for Brick configuration. It is also possible to randomly stagger (offset) the planks which results in a look that resembles wood plank flooring.
- Periodically check alignment during installation (refer to 'Square Module' section 4 'Installation Tolerances' on page 14).
- Additional working lines parallel to the starting working lines will assist to maintain the integrity of the pattern and avoid risk of running out of alignment and/or peaking or gaps at the joints.

## Herringbone:

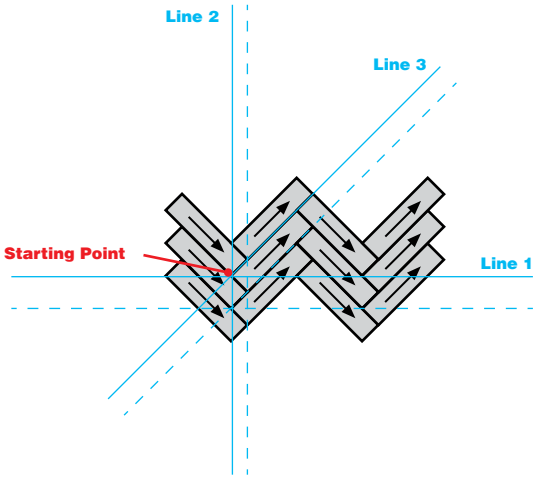
Herringbone configuration is a distinctive graphic layout that creates a unique effect. Laying a herringbone pattern will require more care to setting-out since the increased number of modular rows must be aligned accordingly. Determine the center of the room; the starting point for herringbone installation must be as near to the center of the room as possible and must be positioned to utilize the largest cut tile size at the perimeter ensuring pattern symmetry.

The herringbone can be installed parallel or at 45° angle to the room

**90° Herringbone**




**45° Herringbone**




- At the center (starting) point, draw a line parallel to the longest wall (Line 1), a vertical line (Line 2) at a right angle to the first line and a diagonal 45° line (Line 3) to demarcate the working lines.
- Make a dry layout of the plank tile configuration from the center line to the wall running parallel to the long direction of the planks to confirm a balanced layout.
- Installation must start from the center point. It is critical in laying the initial row correctly aligned with the working lines, as they are the foundation for the rest of the installation and crucial to the end-result.
- Periodically check the alignment during installation (refer to 'Installation Tolerances' on page 14).
- Additional working lines parallel to the starting working lines will assist to maintain the integrity of the pattern and avoid risk of running out of alignment and/or peaking or gaps at the joints.

**Failure to follow the specified or a manufacturers recommended installation configuration (refer above) as stipulated on the reverse side of each individual Collection folder and Specification may result in unwanted visual effects. In certain situations product may appear unsightly at the edge of each module. We recommend that a small area is dry laid to inspect before commencing adhesion.**

# DISCLAIMER:

## Modular Carpet tile joints; Visibility of joints in plain solid textures or near plain textures:

It is expected that the seams of plain solid and near plain textures will be more noticeable than tonal and/or patterned textures. This is not considered or accepted as a product defect, because it is an inherent characteristic of a distinct object (the tile in this case) in a plain solid and near plain texture. It is no different to what one will observe in any flooring material that is modular, such as wood planks or ceramic tiles.

For plain solid and near plain texture modules, we recommend a “quarter-turn” installation configuration for square tiles and a single herringbone installation configuration for plank tiles. These installation configurations create a subtle shade difference as a result of being installed in two directions.

If you prefer a carpet tile that masks most joints, select a product that has a multi-tonal texture or a texture that can minimize the noticeable tile joints in most applications. Please consult with your Carpets Inter rep for further guidance and recommendation.

Herringbone Plank Configuration (0.25m x 1.00m)

Random Vertical Plank Configuration (0.25m x 1.00m)

*Photo Credit - Belmadar, Robert Walsh*

# 2. Installation Method

## 2.1: Full Stick-Down with Pressure Sensitive Adhesive

When installing EcoSquare® backed modular carpet we recommend using only an industry recommended pressure sensitive adhesive designed for installation over metal, wood and concrete subfloors. Using the recommended pressure sensitive adhesive and application method will enable periodic uplift and replacement if or when required to access under floor or repair surface damaged modules. Upon end of life-cycle the installed product can be easily removed without affecting the subfloor condition.

Before adhesive application, the floor surface must be clean, dry and free of dust. Old Carpet, underlay, loose laid vinyl, cushion back vinyl and any old adhesive contamination must be totally removed and the floor ground clean. Ensure that the floor is in the required condition as outlined on page 4 of this guideline.

i) Ensure that porous floors are sealed with a recommended sealant and fully dry before commencing to apply the adhesive.

ii) The specified pressure sensitive adhesive should be applied using a recommended roller to achieve an even spread. The thickness of the applied adhesive must be in accordance with the adhesive manufacturer's recommendations. The adhesive is to be spread to all floor surface areas to be carpeted, including the peripheral areas/corners and niches adjacent to the wall skirting (base board). Failure to apply adhesive completely may result in smaller perimeter pieces constantly uplifting during regular vacuuming.

iii) Allow the adhesive to dry completely to a clear film before placement of carpet tiles.

iv) We recommend that the installed product is then rolled over within 60 minutes of placement using a 30 to 45kg carpet roller to ensure complete compression onto the adhesive coat.

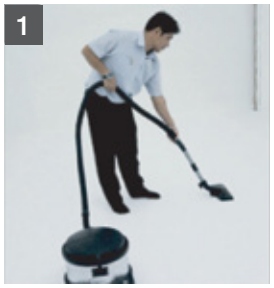
v) Wait at least 24 hours before using the area after completing the installation.

## 2.2: Floated Floor with CI Tack Tile Sticker

The CI Tack Tile sticker provides an alternative to using an adhesive installation method, and is suitable for installation onto flat, hard, and level floors.

i) Before starting, ensure that the back of EcoSquare tile is free from dirt, dust, debris and moisture.

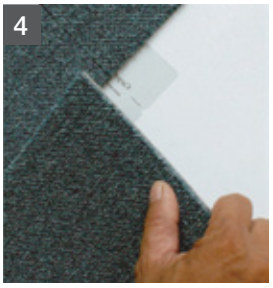
### How to use CI Tack Tile Sticker to install Carpet Tile




The floor surface must be clean and dry. The floors must be properly cured, level and smooth. The moisture level should be up to 75%, pH level is in between 7-9.

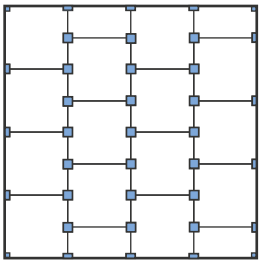
Directional arrows are on the back of each tile. Determine the arrow direction before the tile is installed. Arrows allow for one-directional or multi-directional installation.

Peel the sticker and adhere it to the corner of each tile at every join.

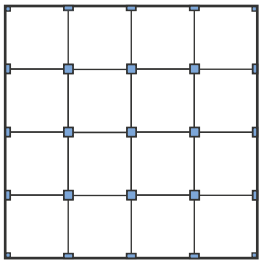



The next tile must be adhered to the guide mark on the sticker.

ii) A CI Tack Tile Sticker must be placed at every corner of Full piece or Cut piece tiles. An applied Tile Sticker can be peeled off to be re-positioned one or two times. Thereafter please use a new sticker.



***Example of sticker installation method for Vertical Brick configuration.***



***Example of sticker installation method for Monolithic configuration.***

iii) The CI Tack Tile Sticker method is only recommended to be used in low to medium commercial traffic locations.

iv) Do not use CI Tack Tile Sticker for installations on stairs and ramps. Use a recommended pressure sensitive adhesive as outlined in section 2.1 above.

v) We recommend that the installed product is then rolled using a 30 to 45kg carpet roller to ensure complete compression onto the CI Tack Tile stickers.

vi) Wait at least 24 hours before using the area after completing the installation.

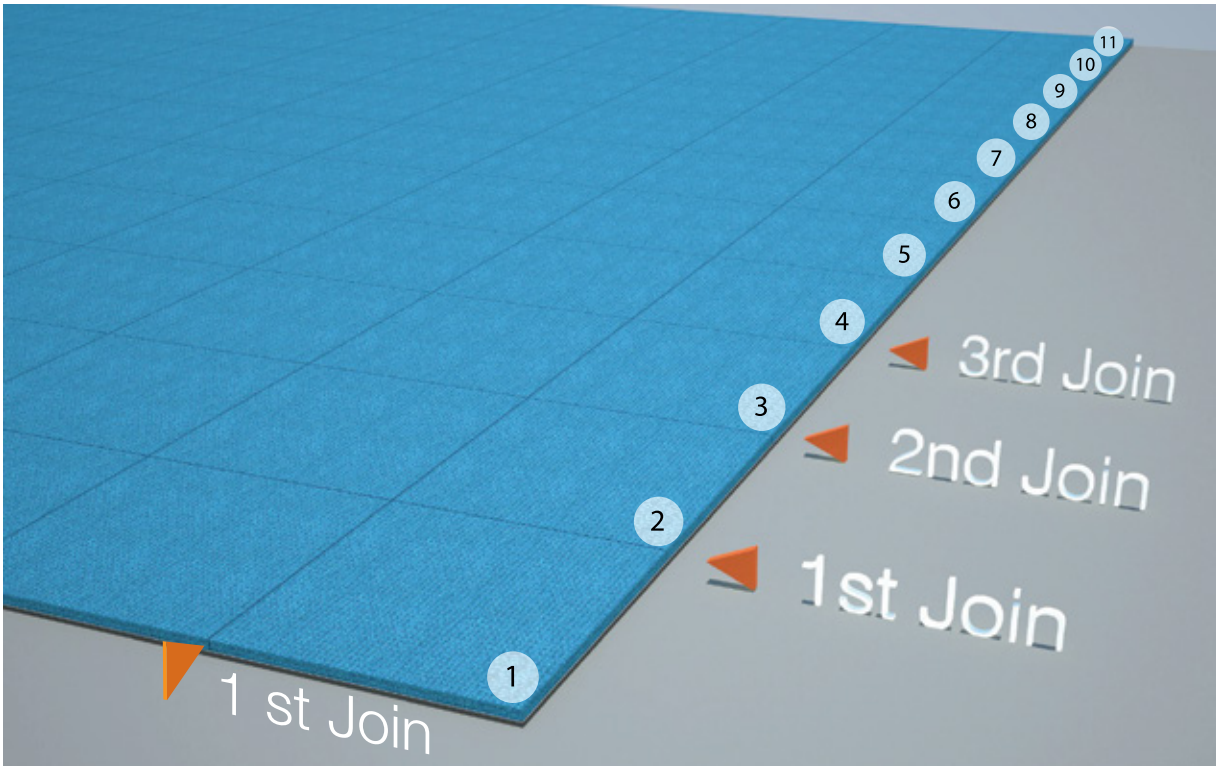
## 3. Tile Placement:

A pyramid method of installation is strongly recommended for the best result. Start installing the tiles butted together by hand from the center of the room and work in an outwards radius until reaching the perimeter.

Do not use force (i.e., a carpet knee kicker) to push the tiles together, as this will create unwanted tension in the EcoSquare® backed module and likely will result in joints 'peaking'. The modules are dimensionally stable and will abut flush by hand without adverse compression.

# 4. Tolerance

EcoSquare® backed modular carpet tiles are engineered to be dimensionally stable in commercial flooring environments under normal conditions. As such they will not distort. However for 'best practice' we recommend that during installation, the installer should intermittently measure the tolerance of the installed area. Typically there should be a very small gap between the adjoining back of each module (approx. 0.5mm), resulting from the surface pile interface, such that from above the joint is flush and overall appearance is continuous.




**Square tile 50x50cm:-**

When running a tape measure over 11 tiles (10 joints), the distance (using 500 mm. x 500 mm. tile) should be the 11 x 500 mm. (width of the tile) plus Approx. 10 x 0.5 mm. (gap) = 5,505 mm.

**Plank tile 25x100cm:-**

By vertical brick installation, when running a tape measure over 11 tiles (10 joints). The distance should be the 11 x 250 mm. (width of the tile) plus approx. 10 x 0.5 mm. (gap) = 2,755 mm.

If the measurement is less than this, then the installation may be too tight, and peaking may occur at the joints. To correct this you will need to uplift and relay, so regular measurement during installation will avoid possible uplift/replacement time, cost, and delay.

Alternatively, if the measurement is greater than 5,505 mm. (or 2,755 mm. for plank), the installation may be too loose and gaps may appear which in turn could lead to ragged edges on individual tiles (yarn sprouting). To correct this, you will need to uplift (nap the ragged edges) and relay, so regular measurement during installation will avoid possible uplift / replacement time, cost, and delay.

# 5. Upon Completion

## 5.1: Temporary Protection:

Caution — if impervious protective covering materials are applied over the newly installed product, condensation may collect under the covering and cause serious damage to the textile floor covering and/or bond strength of the textile floor covering to the substrate. Protective coverings that are self-adhering may leave adhesive residue on the surface of the floor covering. If in doubt, please contact your local CI distributor or alternatively email: info@carpetsinter.com as to the suitability of protective covering materials.

## 5.2: Cleaning and Maintenance:

For Cleaning and Maintenance of CI Modular Carpet Tile, please download our guideline for more information.

http://www.carpetsinter.com/s/Maintenance-Guidelines-for-Commercial-Carpets-Inter.pdf

Checkerboard Square Tile Configuration (0.50m x 0.50m)

Vertical Brick Configuration (0.25m x 1.00m)

# APPENDIX

# APPENDIX A

## Web Slab Adhesive and Application

| Moisture Content (MVER Method) | "PH Level (Surface of Substrate)" | Application Method (Refer to CI Guideline) | Substrate Treatment | | Generic Adhesive (Refer to CI Guideline) |
|---|---|---|---|---|---|
| | | | Burnished | Other | |
| < 5 lbs./1000 ft2/ 24 hrs.for MVER or < 75% RH | Between 7 <9 | Roller | Not Required | Not Required | Pressure Sensitive |
| < 5 lbs./1000 ft2/ 24 hrs.for MVER or 75% to 89% RH | Between 7 <9 | Roller | Not Required | Moisture Barrier Required | High Moiseture Resistance Adhesive |
| < 8 lbs./1000 ft2/ 24 hrs.for MVER or 90% to 95% RH | Between 7 <9 | Roller | Moisture Barrier Required | | High Moiseture Resistance Adhesive |
| > 8 lbs./1000 ft2/ 24 hrs. for MVER or > 95% RH | Less than 11 | Roller | Moisture Barrier Required | | High Moiseture Resistance Adhesive |
| Moisture condition other than above | pH Level other than above | Contact Carpets Inter for specific advice | Contact Carpets Inter for specific advice | Contact Carpets Inte for specific advice | Contact Carpets Inter for specific advice |

Carpets Inter takes no responsibility or any liability for any adhesive products, and has no third party interest in any adhesive product.

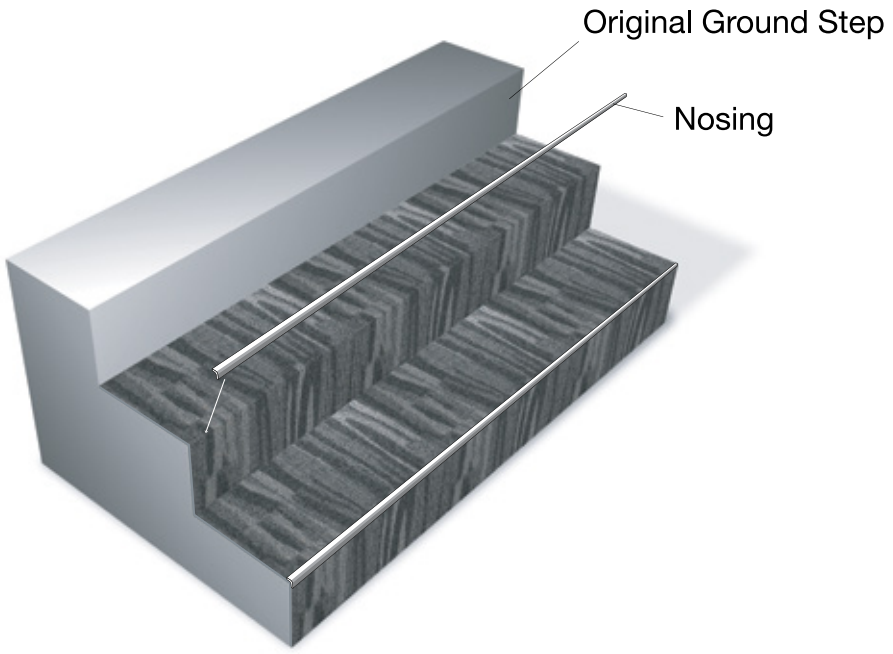
# APPENDIX B

## Stairs:

EcoSquare® Tiles can be installed onto stairs. It is highly recommended that individual pieces be cut and applied to the Step & Riser separately (refrain from bending at 90° right angle as the stiff tile backing will memory recall to its flat form and release).

The nosing (apex) of the step should have a step nosing profile affixed for both aesthetic and safety purposes. Exposed step edges should use a coordinating edge-profile. For step nosing and/or step lighting profiles please refer to your Carpets Inter rep for further guidance and recommendation.

The size and type of Nosing will depend on the style of stairway and the type of environment (refer to profile manufacturers product installation guide).




Carpets Inter takes no responsibility or any liability for any step nosing profile products, and has no third party interest in any manufacture/supplier step nosing profile product.

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