

INSTALLATION INSTRUCTIONS



Milliken™

MILLIKEN WOVEN DESIGN TILE INSTALLATION INSTRUCTIONS



Contents

- | | | |
|----------------------------|--|---|
| 1. Introduction | 5. Installation methods: Monolithic,, Half Drop, Brick, Quarter Turn | 8. Appendix 1 - Creating a Chalkline |
| 2. Temperature and Storage | 6. Stairs Vertical Surfaces & Transitions | 9. Appendix 2 - The scribe cutting method |
| 3. Floor Preparation | 7. Post Installation Protection and Clean Up | |
| 4. Adhesive | | |

Introduction

Ensure that all boxes are of the same batch. Different lots should not be mixed in the same room as they may vary in colour, texture or gloss. Contact your Milliken representative before installing product from differing runs or lots.

A comprehensive guide to subfloor preparations is contained in the Contract Flooring Association's "Guide to Installation of Floorings."

These instructions are NOT intended as a comprehensive guide to Woven Design Tile installation, but point out areas where recommendations may differ from other methods. Milliken will not accept liability on any issues relating to poor fitting of the flooring.

The installation contractor is responsible for reasonable inspection of the product prior to installation and for maintenance of batch integrity during installation. Milliken will not be responsible for visible defects after the flooring has been installed.

Temperature & Storage

- Materials should be stored on the original pallet until the time of installation, or on a flat surface with boxes stacked no more than twelve (12) high. Store in a clean, warm, dry and well ventilated place in the original packing until, installation commences.
- Ensure floor temperature is a minimum of 15°C. Condition modules to 18°C - 23°C for at least 24 hours prior to installation. Acclimatise the space to 18° to 23° C for 48 hours before, during and after installation. The space should be enclosed with the permanent HVAC system operational prior to installation. After installation, avoid large sudden temperature increases and ensure a minimum 18C, and humidity approximately at levels which will prevail after the building is occupied.

Floor Preparation

- Excellent sub floor preparation is essential and the following instructions must be followed closely to ensure the best results. All floor preparation is the responsibility of the installer.
- Raised access floor panels are to be manufactured in accordance with EN12825 and must be level with no rocking movement. When installing Woven Design Tile over raised access floors, the following conditions must be met;
 - Panels are undamaged, firm, level, smooth, dry and clean.
 - Lipping between panels must not exceed 0.4mm
 - Height difference between panels must not exceed 0.4mm
 - Gaps between panels must not exceed 1mm
 - Overall floor must be level within $\pm 1.6\text{mm}$ over a 5m length

- Milliken will not cover or accept responsibility for any joint telegraphing as a ridge or valley
- All remnants of any previous floor covering should be carefully removed, if necessary using grinding and vacuuming.
- Ensure sub floor is smooth, level, (not undulating) to within 6mm across 3.5m with no abrupt changes, hard and dry. It should be free from dirt, grease or other contaminants. Cracks and holes in excess of 3mm should be filled with a floor patching material, such as Latex screed or Ardex "Featherfinish" (or similar). Gypsum based compounds are not recommended.
- When installing on new wet-laid bases, ensure that the drying aids have been turned off for 4 or more days. Then, test the moisture content using a hygrometer in accordance with BS 5325 A or BS 8203 appendix A, as recommended by the C.F.A.
- Take readings in various points over the area being tested. Do not lay coverings until all readings show 75% relative humidity or less.
- For installation with under floor heating, the temperature of the floor must not exceed 28°C. The heating must be turned off 48 hours before laying the tiles.

Recommended Adhesives

- Due to products excellent dimensional stability properties, it is not recommended to adhere using permanent adhesives. The following release adhesives are recommended for standard use.
 - F.Ball Styccobond F41
 - Mapei Ultrabond Eco V4Evolution
- These release adhesives allow modules to be removed from the floor - they are not permanently adhered. The adhesive must be completely dry before modules are installed. To test whether the adhesive is dry: firmly press a tile into the adhesive and then uplift it; there should be no transfer of adhesive to the tile.
- On stair treads the standard modular adhesive is suitable. A permanent contact adhesive is required for stair risers. We recommend F Ball Styccobond F46.

Adhesive Application

- Apply a full spread of adhesive using a short nap paint roller or spray in accordance with manufacturer's recommendations and application rates.
- Take care not to allow adhesive to penetrate raised access flooring joints - it is good practice to stay 25mm away from panel joints.

Installation & Layout

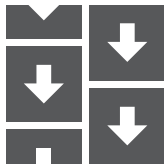
- Start near the centre of the area, at a point chosen to give maximum perimeter cut module size.
- Snap a chalkline parallel to the major wall, and the second chalkline exactly at the right angles. (See Appendix 1 Chalkline Application for detail instruction if required)

Begin installation of the first tile where the chalklines cross and work outwards using the pyramid method shown. *This method gives three alignment checkpoints on each tile placed and helps control spacing or "growth", and keeps the entire layout closely referenced to the chalk lines.*

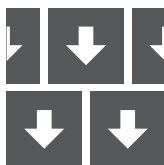
- Suitable installation methods for each product /design are stated on product box labels & merchandising and are indicated by the following icons:



Monolithic



Half Drop

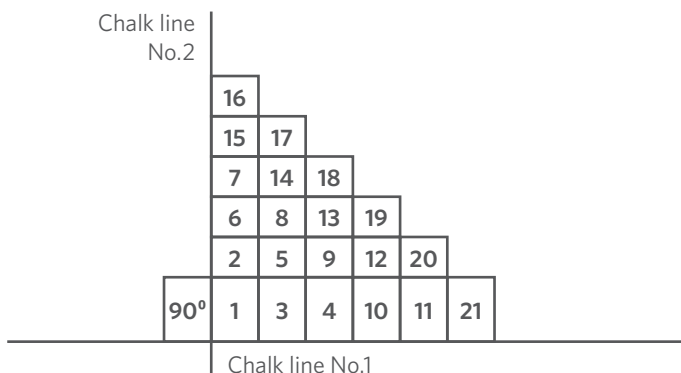


Brick

If you have any queries regarding correct installation method, please contact Customer Services on **+44 (0)1942 826 073**.
carpetenquiries@milliken.com

Installation - Monolithic

The pyramid method is illustrated below:-

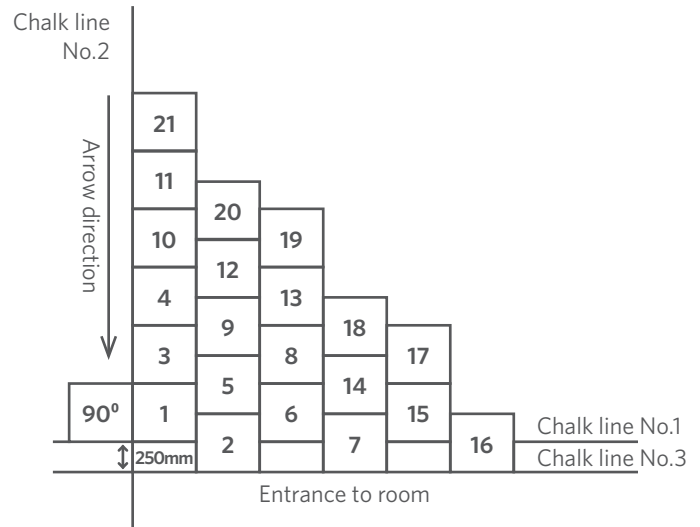


Installation - Half Drop Layout

A third chalkline should be snapped parallel to Chalk line #1, half a tile length below it. (250mm)

Modules should be installed starting from the centre, using the pyramid method. Modules must exactly follow the chalklines.

The pyramid method for half drop is illustrated below: -



Installation - Brick Layout

- Follow the method as per Half Drop, but with arrow directions at 90°.

Installation - Quarter turn

- Follow the method as per Monolithic, but with alternate tile turned 90°.

General Notes

- Modules should be slid into position from the side to avoid trapped tufts.
- Tiles should be butted tightly together to ensure good seamability.
- Wherever possible, (for Monolithic, Brick or Half drop designs) install modules with the arrows pointing along, not across, the heaviest trafficked walkway. Unless it is unavoidable, arrows should not run across hallways. It is important for subsequent maintenance of the flooring.
- At the perimeter of the room cut tiles using the parallel or scribe method (see Appendix 2) to create a good fit.
- Cut modules from the face using new/sharp blades with firm pressure to create a clean cut. Old / worn blades may lead to frayed edges.
- Some white fibres may appear at the seams. These will spontaneously break off during the course of initial cleaning and vacuuming.
- Hard castors at least 50mm in diameter and at least 20mm wide should be used.
- The flooring may be cleaned prior to handover using an upright rotating brush-type vacuum cleaner.
- Adhesive residues may be removed from the flooring using a solvent such as Prochem Solval (used according to the manufacturer's instructions).
- When using castor chairs fitted with hard wheels, a suitable floor protection mat should be used.
- Contacting rubber materials (e.g. tires, floor mats,) should be avoided. Prolonged contact will stain the flooring irreparably. In such cases, the rubber should be replaced with another plastic or suitable protection should be used.
- Woven Design Tile is not suitable for outdoor applications.
- NEVER scrape, sand or mechanically abrade any exposed black adhesive or any existing resilient floor. These may contain asbestos.
- If residual adhesive is NOT black, scrape or sand until smooth and non-tacky, as required above, and follow with a thorough mopping.

Stairs and Vertical Surfaces

- Nosings must be used when installing modules on stairs. Nosings suitable for the profile of Milliken Flooring are available from www.Gradusworld.com
- It is recommended that a 30 point visual contrast be achieved between the nosing and the flooring LRV Y value (see Milliken Light Reflectance specifications).

Transitions between flooring products

- Appropriate transition strips MUST be installed wherever there is potential for an edge to be exposed, or where Milliken Woven Design Tile finishes to another flooring type. The total thickness of Comfort Plus backed products requires a transition treatment capable of accepting the carpet without the necessity of modifying or adapting the edge. Universal Transition strips are available from Milliken covering height differences from 3mm to 7mm. Equivalent products from Gradus and other manufacturers are also acceptable.

Use of improper and/or inadequately installed transition treatments may result in edge failure. Selection and installation of these products is the responsibility of the installation contractor.

Post installation Protection and Clean-Up

- Protect the flooring using heavy plastic sheets, with joints taped immediately after installation. Do not tape directly to the flooring, or use sticky backed plastic as some brands leave adhesive residues which can be difficult to remove.
- Use Plywood to protect the flooring where heavy furniture or supplies are moved through the installation.

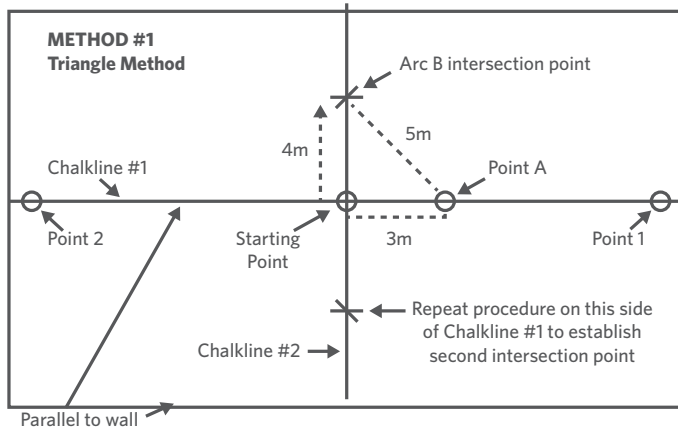
Installation Instructions

After thorough floor preparation, simply follow the standard Milliken instructions for:

- Temperature and storage
- Layout & Chalkline creation
- Installation direction
 - (Monolithic, Half Drop, Brick, or Quarter Turn)
- Pyramid method
- Scribe cut of perimeter pieces
- Post Installation clean up

APPENDIX 1. Creating your Chalklines

The triangle method is illustrated below:-



Chalkline #1

- Regardless of method, chalk line one, also referred to as the “baseline”, is snapped roughly parallel to some architectural feature (outside wall, column line, etc.) and generally runs the longer dimension of the area.
- This is done by placing two, and only two, points on the floor as far apart as possible within the area at the same distance from the selected architectural feature. (See Point “1” and Point “2” on the diagram.) This distance is determined by the installer to optimise cut sizes and minimise waste.

Starting point and chalk line #2

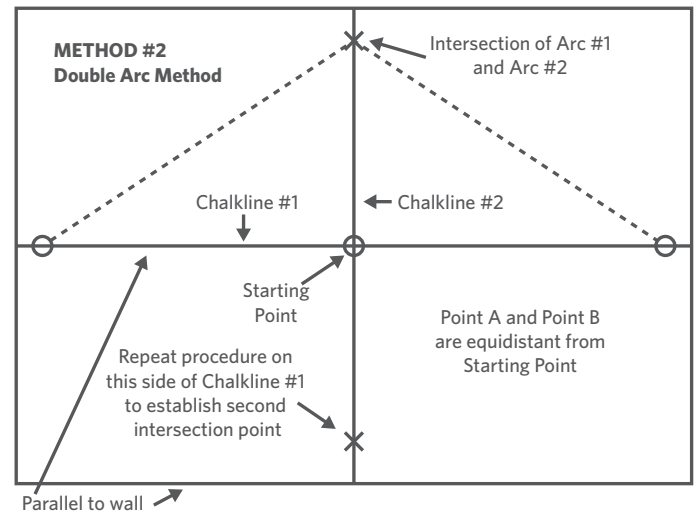
Select a starting point somewhere on Chalk line #1. The location of the starting point is usually, but not always, close to the true centre of the area. It may be offset to optimise cut sizes.

Using the largest possible multiple of a 3-4-5 triangle (6-8-10, 9-12-15, 12-16-20, 15-20-25, 18-24-30, 30-40-50, etc.) construct a chalk line through the starting point exactly 90° to chalk line #1 as follows:

Note: in this example we will use a 3-4-5 triangle measured in metres, however, units of measure used do not affect the validity of the procedure.

- Measure exactly 3m from the starting point along chalk line #1.
- Measure exactly 4m from the starting point approximately perpendicular to the line #1. Mark an arc (line) on the floor parallel to chalk line #1 approx. 10-15cm long, as indicated by Arc “B”.
- Measure exactly 5m diagonally from point “A” to Arc “B”, as indicated.
- The point on Arc “B” exactly 5m from point “A” when connected with the starting point gives a line exactly 90° to chalk line #1. For maximum accuracy, this procedure should be repeated on the opposite side of chalk line #1.
- A chalk line or a dry line should be stretched between the two intersection points created. If measurements are accurate, the string will go directly across the starting point.

The double arc method is illustrated below:-



Chalk line #1

Same as in triangle method.

Chalk line #2

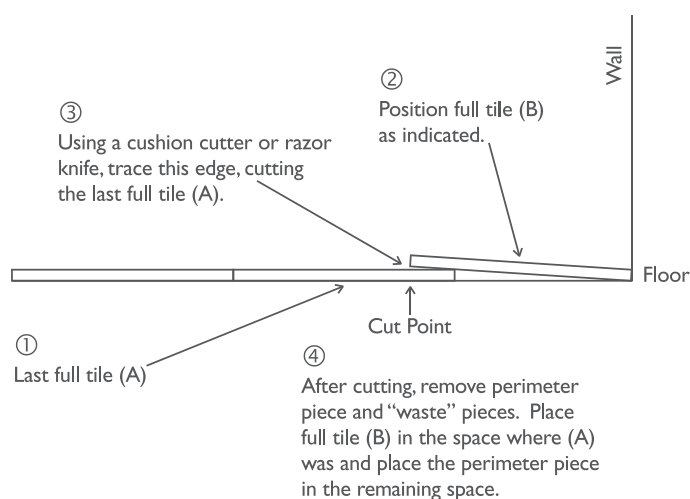
Select starting point in same way as triangle method and proceed as follows:

- From the starting point, measure any convenient distance in both directions along chalk line #1, then mark point A & B on the floor (see diagram). These points should be as close as possible to the end walls of the area and must be the same distance from the starting point.
- From points A & B, measure diagonally as indicated by the dotted lines, allowing the tape measure to feed out until you are close to the side wall. Place a framing square or a carpet module at the starting point aligned with chalk line #1, to act as a visual guide to tell you when you are close to 90°. Once you feel you are close, pick a distance and remember it.
- Strike an arc (Arc #1) measuring the distance determined above from point “A”. Now working from point “B”, measure diagonally using exactly the same distance used to strike Arc #1 and strike Arc #2. This intersection point connected to the starting point is a 90° angle to line #1.

As in the triangle method, this procedure should be repeated on the opposite side of line #1. Once accurate chalk lines are applied, begin installation at the intersection point of the two chalk lines.

APPENDIX 2: Cutting Using the scribe method

The parallel or “scribe” cutting technique is one method of easily and accurately cutting modular carpet (see diagram below). This method is valid regardless of backing system. This method yields a good vertical cut that is snug but not compressed.



Contact

Milliken Carpet

Beech Hill Plant, Gidlow Lane, Wigan WN6 8RN, England

Tel: +44 (0)1942 612 735

Fax: +44 (0)1942 826 570

E-mail: carpetenquiries@milliken.com

The above instructions represent the best available data and are deemed to be correct and complete, however, Milliken assumes no liability for installation related problems.