

## CCT - COMMERCIAL CARPET TILE INSTALLATION GUIDELINES

### GENERAL INFORMATION

Contract180 adheres to basics of the Carpet and Rug Institute's (CRI) Installation Standard, which offers general minimum requirements. In addition to the minimums from CRI, this guide provides specific detail required for Contract180 products. Contract180 requires site and subfloor conditions like those for any carpet tile. Site should be fully enclosed with an HVAC system functioning to maintain temperature within a range similar to levels maintained when occupied as explained here. Each of the following steps is essential for a successful installation and is required to maintain full warranty coverage.

All recommendations are based on the most recent available information. The information on this sheet provides general subfloor guidelines. For complete details consult Contract180's General Installation Guide or visit our website at [Contract180.com](http://Contract180.com). All instructions and recommendations must be followed for a satisfactory installation. Good preparation is essential for a trouble-free installation. Do not install Contract180 flooring until job-site testing and subfloor preparations are finished, and the work of all other trades is complete. Site conditions must comply with relevant building codes and local, state, and national regulations.

### ESSENTIAL FIRST STEPS

- Check style and color.** Contract180 requires the carpet be inspected prior to installation for proper style, color, and potential defects.
- No visible defects.** No claims will be honored if modules are installed with visible defects.
- Read instructions.** Read all instructions prior to beginning installation.
- Confirm layout.** Each style of Contract180 carpet tile will have a recommended layout or method for installation that will be specific to that style. The recommended layout will be listed in the brochure of the architect folder or website. Contract180 evaluates each style in a range of layouts to help maximize seam appearance. Customer should evaluate a small mock-up of the recommended layout and tile direction prior to proceeding with full installation. Use of any other layout can compromise seam aesthetics. Contract180 will not accept claims for carpet installed using a different layout than recommended. Diagrams are detailed later in this guide.
- Site conditions.** Maintain temperature at 60-85° F with ambient humidity between 40-60% for 48-72 hours before, during installation, and at least 48-72 hours after installation. Maintain temperature between 55-90° F for product life.
- Material conditioning.** Carpet tiles and adhesives must be allowed to adjust to job-site temperature for a minimum of 48 hours prior to installation.
- Subfloor testing.** No Moisture Testing Required for Extreme Plus backing when installed with Extreme Plus Adhesive provided the slab meets ASTM F710 including the presence of an intact moisture vapor retarder per ASTM E1745 (Class B Minimum), is in direct contact with the concrete slab, no standing water, no free liquids present, no evidence of moisture staining, and no hydrostatic pressure, for porous installations only. PH testing is required with a limit of 12. For all other condition's or when the above requirements are not met, the Extreme Plus backing limits are in situ relative humidity (maximum RH 95% per ASTM F-2170) and/or moisture vapor emissions (maximum 10 lbs./1,000 SF/24 hrs. per ASTM F-1869). Concrete must have a 12 pH (ASTM F-710). On-grade and below-grade concrete slabs must have an approved vapor retarder (ASTM E-1745) which is properly installed (ASTM E-1643). No Moisture Testing Required for Extreme Plus backings when installed with Extreme Plus Adhesive provided the slab meets ASTM F-710 excluding the presence of an intact moisture vapor retarder, no standing water, no free liquids present, no evidence of moisture staining, and no hydrostatic pressure.

## Installation Guidelines

- **Dye lots.** Contract180 does not recommend mixing dye lots, especially in open areas that are highly visible. Mix dye lots only if necessary in natural break areas where dye lot changes would be less noticeable. Always get prior approval before mixing any dye lots.
- **Direct Glue.** Contract180's carpet tile are to be installed by the direct glue method only. Stretch in over cushion and double glue down installation methods will not be warranted.
- **Adhesive.** Contract180's Extreme Plus pressure-sensitive adhesive must be applied in a full-spread application using the correct notched trowel as detailed later in this guide.

**Important note:** Contract180 adhesives are specifically formulated to be fully compatible with backings chemistry and to maximize the performance of Contract180 products. Using substitutes or failing to use Contract180 adhesives as recommended can cut-short product life, cause installation failure, and/or lead to a chemical reaction, such as hydrolysis, which will permanently damage the tile backing and will void all applicable warranty coverage. For Contract180's lifetime limited bond warranty, the appropriate adhesive must be used. Contract180 will not be responsible for adhesive bond where other adhesives have been used

### SUBFLOOR PREPARATION

Careful subfloor preparation is vital for an excellent floor appearance and good adhesion. The subfloor must be smooth, firm, flat, clean, dry, free from defects, and fit for purpose. A suitable smoothing compound should be used to ensure that no irregularities show through to the surface of the finished floor. In all cases, the subfloor must meet the moisture and pH requirements before installation.

### CONCRETE

Before proceeding with installation on any concrete subfloor, please make sure:

- Levelness and finish meets or exceeds American Concrete Institute standards, ACI 301.
- Moisture and alkalinity levels meet requirements as detailed earlier.
- Curing compounds are mechanically removed. Many concrete curing agents can prevent adhesives or sealers from forming a proper bond, especially those with silicate compounds.
- Chemical agents are avoided for removal of curing compounds or old adhesives.
- Portland cement-based compounds are always used and mixed according to manufacturer's instructions when patching cracks and holes, and when leveling is required.
- Gypsum-based patching compounds are always avoided.
- Contract180's Universal Primer is used on any subfloor that is porous, gritty, chalky, or dusty.

### OTHER SUBFLOOR TYPES

Any subfloor surface must be smooth, level, clean, and secure prior to installing Contract180 floor covering products. To achieve maximum product performance, it is always best to remove existing floor covering and prepare the substrate before installing new products.

- **Wood.** Wood floors must be smooth and level. If floor is uneven, an approved underlayment may be required. Plywood sheets must be solid and secure. Plywood seams may need to be sanded smooth. Dust must be thoroughly vacuumed. Fire-retardant plywood is not recommended.

## Installation Guidelines

- **Wooden planks.** Wooden plank flooring should be covered with plywood as detailed above as stable, flat, and suitable for installation.
- **Terrazzo/ Marble.** Level all grout lines with a latex based Portland cement patching compound. Glossy surfaces must be sanded for adhesive bond.
- **VCT.** Tiles must be well secured to the floor or removed. Broken, damaged, or loose tiles must be replaced. Wax must be removed from VCT before applying adhesive.
- **Sheet vinyl.** Must be well secured, consist of a single layer, free of contaminants, not foam backed, not perimeter fastened or loose laid, and no asphalt-based adhesive.
- **Existing carpet.** Unsuitable substrate for new installation. Should be removed prior to installation. Any existing adhesive should be addressed as described here.

### EXISTING ADHESIVES

As a rule, for any new installation, existing adhesives from previous installations should always be scraped flat and thoroughly encapsulated with a Latex Portland Based Patch or Contract180 Assure. Otherwise, an adverse reaction could occur, voiding applicable warranty coverage and leading to installation or product failure

- **Multi-purpose/pressure sensitive.** Use one of the following methods to prevent possible reaction between the existing adhesive and the new installation:
  - Scrape adhesive flat and encapsulate with Contract180 Assure.
  - Thoroughly remove existing adhesive, sand away remaining residue, and then skim coat with a Portland cement-based patching compound.
- **Cutback.** Existing cutback adhesive must be thoroughly removed and fully encapsulated to prevent possibility of irreversible product damage, installation failure, and voiding Contract180 warranty coverage. Wet with a mixture of water and a small amount of liquid soap. Allow to soak for several minutes before scraping away adhesive. Encapsulate any remaining trace of adhesive residue with Contract180 Assure.

### PLAN AHEAD

To help assure a successful project and prevent unexpected surprises, the following are also important steps to consider prior to installing any Contract180 carpet tile:

- **Sequencing.** The most uniform installation will be obtained by planning and sequencing carpet tiles in the order they were manufactured. Sequencing can be easily accomplished. Select pallets by numbers located on each carton of tiles starting with the lowest numbers first and progressing lowest to highest numbers. Each pallet should have tile cartons with a similar range of numbers.
- **Packaging.** Contract180's 24" x 24" and 12" x 48" CCT Commercoal Carpet Tiles are packaged 18 tiles, 8 yd 2 per unit. The 18" x 36" tiles are packaged 16 tiles, 8 yd 2 per unit.
- **Accessibility.** Carpet tile provides easy accessibility the subfloor and flat-wire or cable trenches. Flat-wire should be centered underneath modules.
- **Raised nosing for stairs.** On stairs, always use a raised nosing. Trim tile to fit nosing on both the step and riser.

## Installation Guidelines

### ADHESIVE

CONTRACT180 recommends the following adhesives:

- Mapei Ultrabond ECO 399
- Taylor Dynamic Adhesive
- Taylor Resolute Adhesive

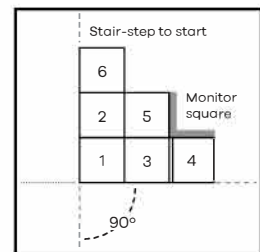
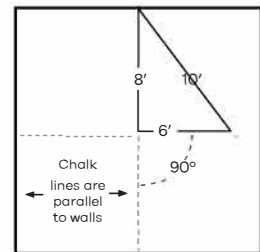
Follow all Adhesive Manufacturer Instructions

### INSTALLATION

A proper start is essential to keeping a carpet tile installation tight and square throughout the installation. Please pay careful attention to these basics:

- **Establish center point.** Measure area to receive carpet and determine a center starting position by measuring from dominant walls or similar architectural features.
- **Adjust for cuts.** Initial placement of the center point may need to shift slightly to make sure perimeter tile cuts are at least half the tile's width (Example: 12" on a 24" x 24" tile).
- **Set perpendicular lines.** Establish two chalk lines that cross at adjusted central point and intersect at right angles. The base line should be the longest measurement in a rectangular area and parallel to a wall or architectural break point. Having four equal quadrants with perpendicular lines at the right angles will provide an essential guide to anchor the first tiles, to help keep the installation square, and to fit tile backings tightly together.
- **Establish a grid.** Keeping the installation tight and square requires creating a grid by establishing two perpendicular chalk lines, calculated at right angles on the area's center point, and then by anchoring first tiles installed snug against the two chalk lines. The two lines intersect to form a right angle and are "square" when two points, one at 8' vertically and one at 6' horizontally from center point, are exactly 10' apart. Use the 3', 4', and 5' formula as described above to set perpendicular chalk lines in smaller areas.
- **Stair-step tiles within grid.** Start by placing first tile backing snug into corner where chalk lines cross. Tile backing should align with chalk lines on two sides. Form steps by sliding each subsequent tile, backing first, into tight alignment with the previous tile. Avoid overly compressing backings or trapping yarn in seams. Second tile goes on top with one side on the vertical chalk line. The third tile goes against the right side of the first tile. Continue in the same manner, etc. Use a carpenter's square to spot check frequently. Please keep in mind that seams on any new carpet tile installation will be more obvious until the yarn has acclimated, relaxed, and blossomed with routine traffic and vacuuming. To facilitate seam blending it is recommended to tractor seams with a box tractor. Keep tiles square and tight to avoid gaps.

- **Check tightness.** Tightness or gain should be measured periodically to assure tile backings are snug and the installation is square. Determine the amount of gain or growth in the installation by measuring the total distance between 10 tiles in both directions. Ten 24" x 24" tiles have a net measurement of 240". The seam between each tile will always create some amount of gain or addition space in the installation. Measuring 10 tiles or 11 joints in either direction will provide enough seams to accurately represent the amount of gain. Whether the tile is 24" x 24",



Installation Guidelines

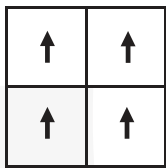
18" x 36", or 12" x 48", the gain or space between tiles should never be more than 1/4" greater than a net measurement of 10 tiles or 11 joints. For instance, 10 tiles at 24" each should not exceed 240" in either direction. If the net measurement exceeds a gain of 1/4", the affected area(s) will need to be picked-up and re-installed tighter to stay on grid.

• **Cut/ Trim tiles properly.** Carpet modules will require cutting at perimeters, floor electrical outlets and door openings. Whenever modules are cut or trimmed, adhesive must be used. Loop pile modules may require some trimming or clipping of tufts. This is typical of this type of construction and is not a manufacturing problem. Small pieces of carpet tile should also have glue applied to the backing to help hold them in place.

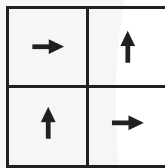
**TILE LAYOUT**

Contract180 carpet tile may have a specific recommended installation method. Refer to brochure inside architect folder or website for installation recommendations. Please note that all patterns and colors may not be aesthetically acceptable with certain installation methods. Contract180 evaluates each product and recommends the installation method for the best aesthetics. A mock up area is recommended for review before selection of an alternate method. Contract180 cannot be responsible for seam aesthetics if the installation deviates from the recommended layout for a style.

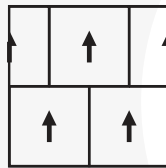
**24" x 24" Installation Diagrams (Installation Methods are Style Dependent)**



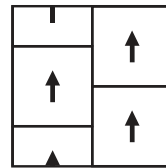
MONOLITHIC



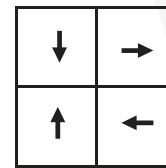
QUARTER-TURN



HORIZONTAL BRICK ASHLAR

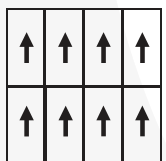


VERTICAL ASHLAR

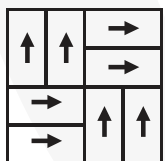


SHUFFLED/RANDOM

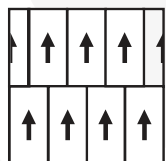
**18" x 36" & 12" x 36" Installation Diagrams (Installation Methods are Style Dependent)**



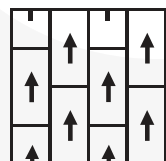
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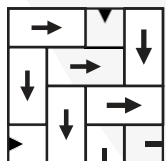
QUARTER-TURN



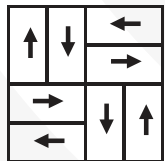
HORIZONTAL BRICK ASHLAR



VERTICAL ASHLAR

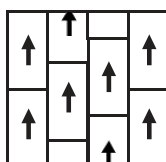


HERRINGBONE

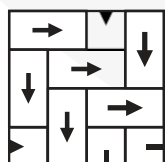


SHUFFLED/RANDOM

**12" x 48" Installation Diagrams (Installation Methods are Style Dependent)**



3-STEP VERTICAL ASHLAR



HERRINGBONE

## Installation Guidelines

### TRANSITIONS

All carpet products must be properly protected when transitioning to other floor covering or exposed stopping points. The use of a transition molding or protective strip covering the carpet edge at 1/2" is required. If a transition cannot be utilized the carpet nap must be level or slightly below the adjacent floor.

### PROTECT INSTALLATION

Ideally, carpet should always be installed last in any construction or renovation project. The completed installation should be protected as finish trades complete the project, during customer move-in, or when heavy rolling carts are used.

- **Craft paper.** Bonded craft paper will protect the completed installation from construction dirt and spills while allowing floor covering primers, sealers, or adhesives to cure properly.
- **Avoid plastic sheeting.** Never use plastic sheeting to protect any installation.
- **Avoid sticky coverings.** Protective coverings with pre-applied adhesive or tackifiers can leave a sticky residue on the carpet face, cause rapid soiling, and should not be used.
- **Heavy rolling carts.** Masonite or plywood should be used in traffic lanes to prevent tile from shifting any time furniture is moved.

### AFTER INSTALLATION

As the customer begins to enjoy their new installation of Contract180 carpet tile, please also note the following:

- Roll entire job with a 75-100 lb roller.
- Chair pads are recommended but are not required. Chair pads can prevent premature wear and distortion of carpet's face fiber underneath rolling office chairs, even when carpet casters are used. Use only carpet friendly casters. Casters should be the flat round type with a 5/8" to 1" width minimum.
- When loop pile carpet is cut into tile, some loops on tile edges will be cut in half. Vacuuming and routine use will expose those cut yarns that remained compressed and hidden during manufacturing or installation. This blossoming is easily remedied by clipping stray fiber exposed along tile edges.
- Some carpet styles require more attention from the installers during installation. Due to the light row, dark row construction of these products, dark lines may appear at the edges. This is not a manufacturing defect. These products will require shifting tiles around to avoid dark lines at the edges.
- On occasion, it may be necessary to replace damaged or heavily soiled modules. Modules can be replaced with new Contract180 tiles from on-site inventory or from another area of the installation. A difference of appearance may be noticed when modules are replaced; this difference usually diminishes in a short time.
- Carpet module seams are usually noticeable on a new installation and do not typically have a seamless appearance like broadloom carpet. They are die cut from the face, which can create small gaps at the seams. Pile crush can occur from the bottom to the top of the pallets and may appear to have a color shade variance from tile to tile. Both conditions will improve considerably after a "walk-in" period. This allows the yarn to acclimate and respond to the crush from the stacked cartons on the pallets. Normal foot traffic and regular vacuuming will also improve seam appearance.
- To facilitate seam blending the use of a seam tractor can help blend the yarn. Pile lifting, and/or wet extraction can decrease the time needed for "walk-in" acclimation.