

Important Notices

These Installation Instructions cover most installation procedures. If you run across a situation that isn't addressed in this document or requires more detailed assistance please contact the Kraus Help Desk at (800) 245-0652.

All carpet tiles should be carefully inspected for damage or defects prior to installation. Kraus will not be responsible for any cost associated with replacement or repair as a result of damaged or defective tiles being installed when said damage or defects were identifiable prior to installation.

If you encounter any conditions or defects during installation that could jeopardize the installation or affect the installation procedure, you should STOP the installation immediately and call the Kraus Help Desk at (800) 245-0652.

The carpet tiles are warranted in accordance with Kraus' Standard Product Warranty. If you do not have a copy of Kraus' Standard Product Warranty and wish to obtain one, call the Kraus Help Desk at (800) 245-0652 or visit our website at www.krausflooring.com.

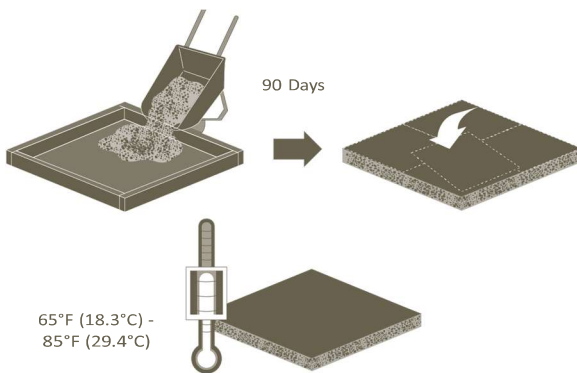
EXCEPT AS EXPRESSLY PROVIDED IN THE STANDARD PRODUCT WARRANTY, KRAUS MAKES NO REPRESENTATION OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF ITS PRODUCTS FOR ANY PARTICULAR PURPOSES, AND HEREBY DISCLAIMS THE SAME.

Without limiting the foregoing, Kraus will not be responsible for tears, burns, cuts, pulls or other damage, deterioration, problems or loss caused by abuse, neglect, misuse, improper installation, improper maintenance, flood, use on stairs, or use with athletic equipment, or installations over substrates where hydrostatic pressure or groundwater intrusion exists. Moisture and pH testing at the installation site are not the responsibility of Kraus, and issues related to or arising from excessive moisture and/or pH are specifically excluded from the Kraus warranty except as expressly set forth herein and in Kraus' product warranty. The Kraus warranty also does not cover any problems or damages arising from or related to the use of adhesives or non-recommended installation techniques or conditions.

WARNING: IN THE EVENT THAT ANY ASBESTOS-CONTAINING MATERIALS OR OTHER HAZARDOUS MATERIALS ARE ENCOUNTERED DURING INSTALLATION, YOU SHOULD STOP THE INSTALLATION IMMEDIATELY AND OBTAIN ASSISTANCE FROM A QUALIFIED REMEDIATION CONSULTANT OR CONTRACTOR PRIOR TO PROCEEDING.

Installation Instructions for any product are subject to change. Please check for updates on our website www.krausflooring.com immediately prior to installation.

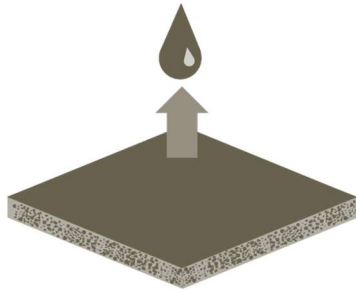
Pre-Installation Visit



Conditioning prior to installation is important for all products. For this reason, the jobsite must be completely sealed (all exterior windows and doors properly installed) before beginning the installation process or before any floor preparations are performed. The jobsite, along with the floor covering materials and adhesive, must be acclimated to a temperature between 65°F (18.3°C) and 85°F (29.4°C) and air humidity from 35% to 65% for at least 48 hours before, during, and continuously after the final installation. The substrate temperature should be at least 5° F (-15°C) higher than the dew point. These conditions are best achieved with a functioning HVAC system.

All carpet tiles must be removed from the cartons and allowed to adjust to the job site temperature for 48 hours prior to installation.

Concrete Moisture and Alkalinity Testing



Before installing, all concrete floors, regardless of age, must comply with the moisture and pH requirements stated below, and must otherwise be suitable for carpet tile installation as set forth herein. The moisture conditions of the concrete should be determined by use of the *In Situ* probe relative humidity (RH) test method (ASTM F 2170). The testing device must be properly maintained and calibrated in accordance with the manufacturer's specifications and frequency recommendations. Certificates of calibration should be maintained for test validation.

Kraus allows for carpet tile installation under a variety of conditions depending on the type of slab and the moisture and pH test results at time of installation. For best results we require the pH test developed by Kraus. Please see Standard Practice for pH Testing Concrete Floors p. 11.

Concrete substrate should have a working vapor barrier. Concrete compromised by ground water intrusion and/or Hydrostatic Pressure are not acceptable substrates for this option and are expressly excluded. The following are the approved adhesives and other limitations for use with the carpet product backing systems listed below. Any installations that are not strictly in accordance with chart below will void the warranty provided.

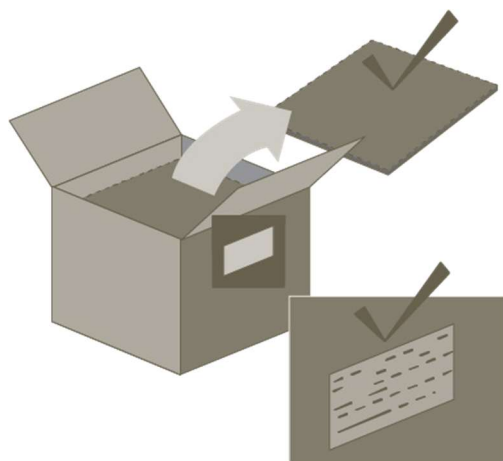
Carpet Product Backing System	Adhesive	Moisture Limit	Surface pH Limit (Must use Kraus pH Testing Protocol)
Eurobac	KPA-51	Up to 90% RH	Between 7.0 and 10
	KPA-99	Up to 99% RH	Between 7.0 and 12
Polyurethane	KPA-51	Up to 90% RH	Between 7.0 and 10
	KPA-99	UP to 99% RH	Between 7.0 and 12

NOTE: Moisture and pH test reflect only the conditions of the concrete at the time of testing. Stated moisture and pH limitations must be maintained before, during and at all times following installation to avoid installation and product failures and to preserve warranty coverage. If the moisture and/or pH test results are outside of the stated allowable limits, STOP and DO NOT PROCEED with the installation. Seek further advice from Interface before proceeding. Refer to Preparing the Subfloor for additional information concerning issues relating to surface conditions of the concrete slab prior to installation.

NOTE: The required pre-installation moisture and alkalinity tests should be performed to ASTM standards. Per CRI guidelines it is recommended that these tests be performed by a qualified independent testing consultant. Kraus will not be responsible for failures, problems, or damage arising from high moisture, high alkalinity, or other subfloor conditions.

NOTE: New or bare concrete is defined as concrete free of adhesive residue, paint, sealers, primers and other applied materials.

Product Inspection

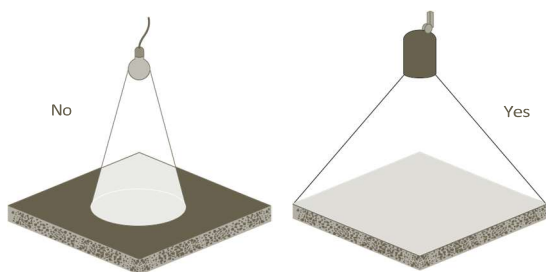


INSPECT KRAUS CARPET TILES TO BE SURE THEY MEET THE ORDER SPECIFICATIONS. IF THE WRONG PRODUCT OR COLOR IS INSTALLED, KRAUS WILL NOT BE RESPONSIBLE FOR CORRECTING THE PROBLEM.

The labels on each carton indicate product style, pattern, color, run number and dye lot. Be sure the style, pattern and color match the specifications for each area of your installation.

Check to confirm that you have the right quantity and correct installation method. Be sure you also have enough tiles to establish an “attic stock” for future replacements.

Open all cartons to inspect for damaged or defective tiles. If you find any, call the Kraus Help Desk at (800) 245-0625.



LIGHTING

Ensure adequate overhead lighting is provided. Ideally, lighting should mimic or consist of the same conditions expected at time of occupancy.

INSTALLATION OF CARPET TILES SHOULD BE THE LAST ITEM ON THE CONSTRUCTION SCHEDULE. CAREFULLY CONSIDER THE RISKS IF YOU ARE ASKED TO INSTALL CARPET TILES TOO EARLY. IF CARPET TILES ARE INSTALLED BEFORE CONSTRUCTION IS COMPLETE, ANY STAINING, SOILING OR DAMAGE CAUSED BY OTHER TRADES MAY VOID THE PRODUCT WARRANTY.

Preparing the Subfloor (Concrete)

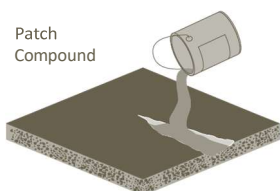


Reference 10' straight edge method. Level is defined as having up to 1/4" maximum gap within 90% of samples taken. No sample should exceed a maximum gap of 3/8".

INSTALLING OVER CONCRETE

All concrete floors must comply with moisture and alkalinity requirements prior to proceeding with installation. (Concrete Moisture and Alkalinity Testing p. 2)

Level the floor to the standards outlined in the American Concrete Institute specifications for Concrete Buildings in regard to troweled finish and finishing tolerances. Leveling compounds must be cementitious based.



Sand



EXISTING CONCRETE

Patch cracks and holes with one of the following approved patching compounds: Ardex Feather Finish, Ardex K-15, Henry's 547, Armstrong S-184 or similar cement based compound. NOTE: Some patching compounds can be mixed with water while some must be mixed with latex. Follow the manufacturer's specifications and instructions for use.

NOTE: All adhesives, solvent based materials and other contaminants should be removed and encapsulated prior to application of adhesive and installation of carpet. Contact the Kraus Help Desk at (800) 245-0625.

NEW CONCRETE

New or bare concrete is defined as concrete free of adhesive residue, paint, sealers, primers and other applied materials. Kraus recommends that dusty and / or porous conditions be primed using a latex based floor primer.

Preparing the Subfloor (Gypsum-Based Underlayment)

INSTALLING OVER GYPSUM-BASED UNDERLAYMENT

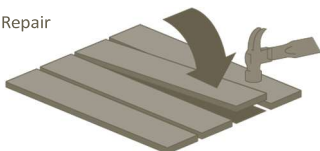
Kraus recommends that the gypsum-based product be installed at a commercial strength of 3500 psi or higher to help prevent cracking.

Kraus recommends properly sealing gypsum-based underlayment before installing Kraus carpet tiles. Sealing the surface of the gypcrete allows the carpet to properly release from the adhesive and it reduces the natural dusting of gypsum-based materials.

Installing over properly applied gypsum-based underlayment will not void the Kraus standard product warranty, but Kraus assumes no liability for issues relating to or resulting from the use of gypsum or any other underlayment. For this reason, claims associated with the use/failure of an underlayment product should be directed to the underlayment manufacturer or the individual(s) responsible for its application.

Preparing the Subfloor (Wood, Plywood or Particle Board)

Repair

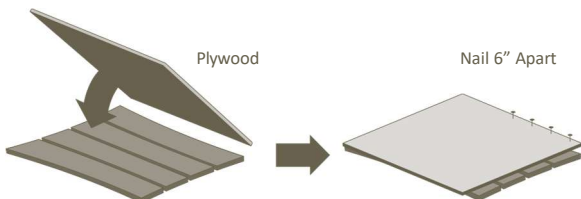


INSTALLING OVER WOOD, PLYWOOD OR PARTICLE BOARD

Repair loose or broken boards. Secure with 8-D cement-coated screw nails.

Plywood

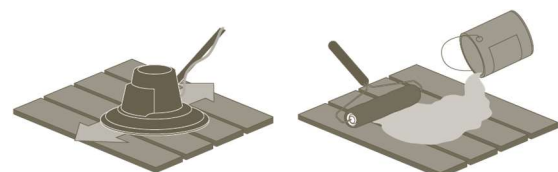
Nail 6" Apart



If the majority of the boards are worn or badly cupped, cover with 5/8 inch (1.6 cm) exterior grade AD plywood secured with 8-D cement-coated screw nails spaced 6 inches (15.2 cm) apart. Sand seams smooth.

Sand

Barrier Coat



Sand the finish down to bare wood. Remove dust by sweeping, then wiping with a tack cloth. All wood surfaces should be primed prior to application of an adhesive. Kraus recommends using a latex based floor primer.

NOTE: All adhesives, solvent based materials and other contaminants should be removed and encapsulated prior to application of adhesive and installation of carpet. Contact the Kraus Help Desk at (800) 245-0625.

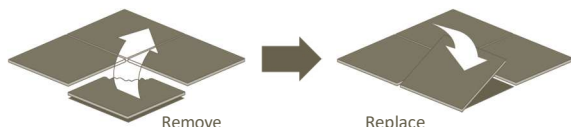
Preparing the Subfloor (Vinyl)

Sand



Remove

Replace



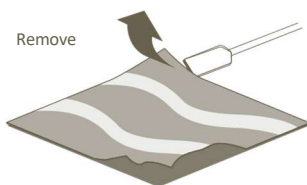
INSTALLING OVER VINYL TILE

WARNING: EXISTING FLOOR COVERING MAY CONTAIN ASBESTOS OR OTHER HAZARDOUS MATERIALS. IN THE EVENT ASBESTOS-CONTAINING MATERIALS OR OTHER HAZARDOUS MATERIALS ARE ENCOUNTERED, YOU SHOULD STOP THE INSTALLATION IMMEDIATELY AND OBTAIN ASSISTANCE FROM A QUALIFIED REMEDIATION CONSULTANT OR CONTRACTOR PRIOR TO PROCEEDING.

Use an appropriate non solvent stripper or a sander to remove the wax top coat.

Remove any damaged or loose vinyl tiles and replace with comparable thickness tile or patching compound. **Do not install over existing floating vinyl floors.**

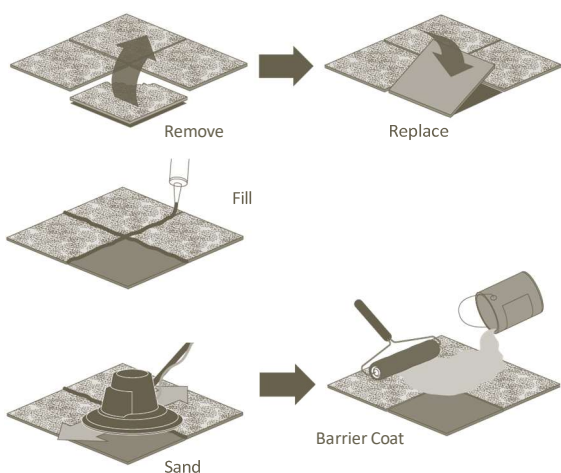
Preparing the Subfloor (Vinyl) Continued



INSTALLING OVER SHEET VINYL

Do not install Kraus carpet tile with adhesive over sheet vinyl. The sheet vinyl must be removed with a scraper. Any existing adhesive remaining on subfloor should be removed by grinding/scraping and residue encapsulated. Once removed, follow instructions for subfloor found under the sheet vinyl.

Preparing the Subfloor (Natural Materials)



INSTALLING OVER NATURAL MATERIALS

For natural materials such as granolithic, terrazzo, marble, ceramic tile, etc., either breakout and remove all material or replace damaged areas with substitute material of the same thickness to create a flat, level floor.

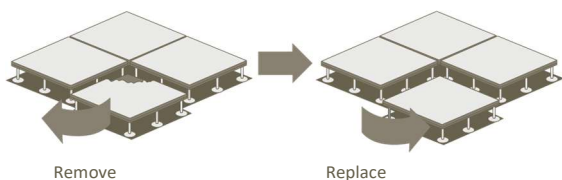
Patch and fill cracks and irregularities, including grout lines, with one of the following approved patching compounds: Ardex Feather Finish, Ardex K-15, Henry's 547 or similar cement based compound.

NOTE: Some patching compounds can be mixed with water while some must be mixed with latex. Follow the manufacturer's specification and instructions for use.

Sand top surface to remove glaze. Remove dust by sweeping, then wiping with a tack cloth.

All porous surfaces should be primed prior to application of an adhesive. Kraus recommends using a latex based floor primer.

Preparing the Subfloor (Raised Access Floors)



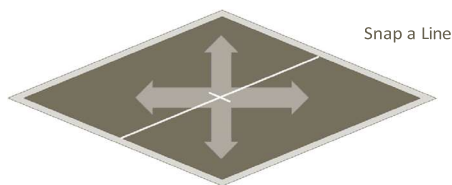
INSTALLING OVER RAISED ACCESS FLOORS

Patch or replace any damaged floor panel inserts.

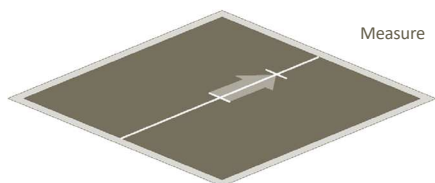
Panels should be free of any dirt, grease, oil, paint, sealer, adhesive or other materials from floor.

NOTE: All adhesives, solvent based materials and other contaminants should be removed and encapsulated prior to application of adhesive and installation of carpet. Contact the Kraus Help Desk at (800) 245-0625.

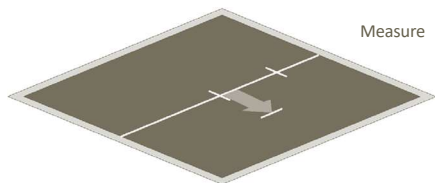
Establishing the Starting Point



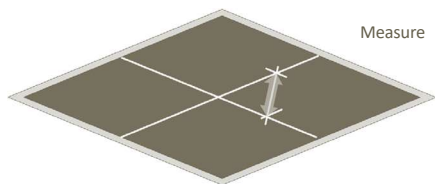
1. Measure to determine the center point and mark. Snap a chalk line.



2. Measure 8 feet (243.8 cm) out from your center point along the chalk line. Make a mark.



3. Measure 6 feet (182.9 cm) from your center point at a right angle to your chalk line and make a mark.



4. Measure the distance between your marks. It should be exactly 10 feet (304.8 cm). If it is, your quadrants will be square. Snap a chalk line here

NOTE: If the room is too small for the above measurements, reduce them by half. Measure 4 feet (121.9 cm) vertically and 3 feet (91.4 cm) horizontally. In this case, the measurement between your two marks should be exactly 5 feet (152.4 cm).

DETERMINE IF CENTER LINES NEED TO BE OFFSET

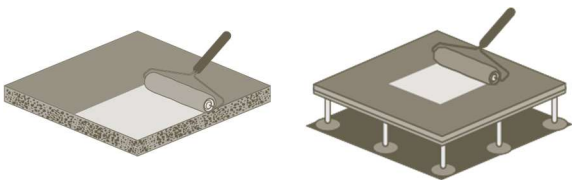
The need to offset either or both center lines will depend upon the installation method and tile format (squares or planks).

Dry fit (without adhesive) a row of tiles along the entire length of your vertical and horizontal center lines. Go all the way to the walls.

If necessary, offset either or both center lines to ensure perimeter tiles will be cut no less than half size, or 9.84 inches (25 cm).

Approved installation methods vary by product and are printed on box labels. An arrow is printed on the back of each tile to indicate direction.

Adhesive Installation



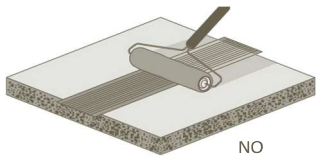
Raised Floor Systems

APPLYING ADHESIVE

Use Kraus Brand KPA-51 or KPA-99 Adhesive.

Full Spread Adhesive Application

Apply adhesive with a 3/8" nap paint roller, or use a 1/32"x 1/16"x 1/32" U Notch trowel.



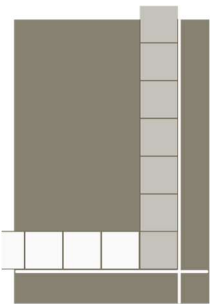
NO

Adhesive in Special Situations

Flatwire - never apply adhesive directly over flatwire. The flatwire may be damaged if the tiles need to be removed.

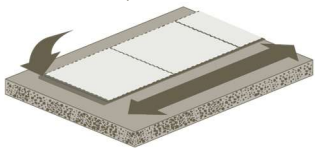
Uneven areas - any surface that cannot be leveled may require adhesive or double-sided tape to hold a tile in place.

Tile Installation (Laying Tiles)



3mm or 1/8" Gain

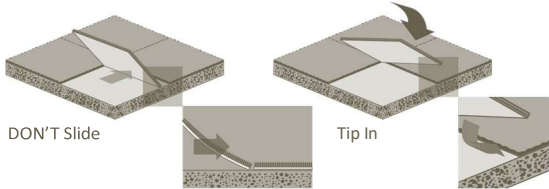
550cm or 216 17/32"



LAYING TILES

Lay an initial tile at the established starting point. Following the center lines closely, lay an anchor row of 10 additional tiles aligned with the center line. In smaller rooms, your anchor rows may consist of fewer than 11 tiles.

Measure your anchor rows. For an installation of square tiles, each should equal 550 cm (11 tiles x 50 cm each, or 216 17/32") with no more than a 3mm (1/8") gain. If the gain is more than 3 mm, the tiles aren't tight enough and should be laid again. After relaying, measure again. If tiles are less than 550 cm they are too tight and should be laid again.

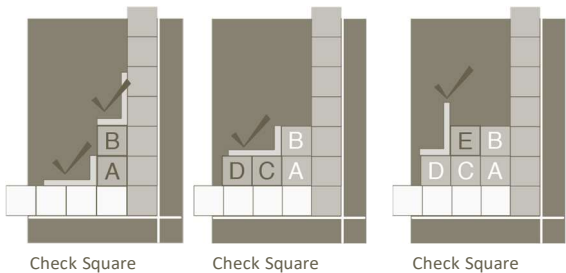


DON'T Slide

Tip In

Tip Into Place

Don't position tiles by sliding them across the adhesive. This will cause the corner to bend under. Instead, brush the pile back with one hand, then tip a corner of the tile into place. Position the rest of the tile once the corner is properly aligned. Do not catch the pile in the joints.



Check Square

Check Square

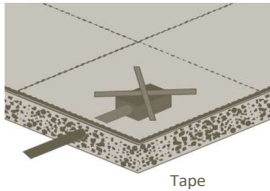
Check Square



Lay Tiles in Step or Pyramid Pattern

1. Lay two tiles vertically, and check that they are square to the anchor rows.
2. Lay two tiles horizontally, and check that they are square to the anchor rows.
3. Lay one tile to complete the step.
4. Follow the ABCD pattern laid out here until you reach the end of your anchor rows. Repeat laying anchor rows and ABCD patterns in all quadrants until complete.

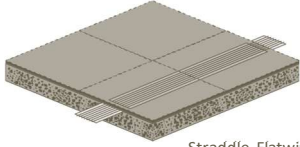
Tile Installation (Laying Tiles Continued)



Tape

Floor Outlets

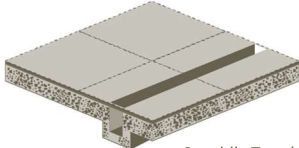
Floor outlets are usually wired after carpet tiles have been installed. Consequently, you should install tiles directly over floor outlets and mark the location with tape. This way, it will be easy to see which tiles need to be lifted for cutouts later.



Straddle Flatwire

Flatwire

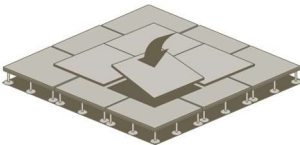
Tile layout should allow flatwire to be centered under a row of tile.



Straddle Trench

Trench Headers

Tile layout should allow trench headers to be centered under a row of tile. Secure the tiles on either side of trench headers with adhesive. This will prevent the installation from shifting while servicing trench headers.

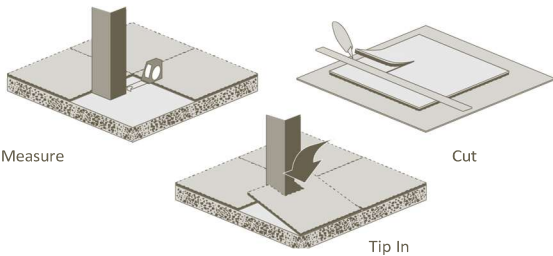


Straddle Seams

Raised Access Floors

Raised access floor panels are susceptible to subtle flexing. To ensure uniform appearance, avoid matching raised access floor seams with tile joints.

Tile Installation (Cutting Tiles)



Measure

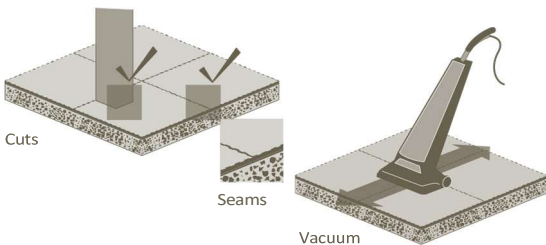
Cut

Tip In

Tiles adjacent to fixtures, architectural elements and walls need to be cut. Follow these guidelines:

- If practical, remove the base molding before installing perimeter tiles. Replace molding when finished.
- Replace blades often. Sharp blades make cutting quicker, easier and more precise.
- Never use other tiles as a cutting surface. Place tiles on layers of cardboard before cutting.
- Always secure cut tiles with adhesive.

Preparing for Occupation



Cuts

Seams

Vacuum

Final Inspection and Vacuum

Inspect the entire installation, paying close attention to joints and any tiles that have been cut.

Vacuum the floor with a pile lifter. If you don't have a pile lifter, use an upright vacuum cleaner.

Tile Installation (Laying Tiles Continued)

Finished Installation

When heavy furniture and wheeled traffic is moved over carpet tiles, use plywood runner to avoid tile shifting. Roll entire job with 75-100 lbs roller after completion of installation.

Chair Pads

Chair pads are recommended for use under chairs with roller casters. Casters should be the flat round type with 5/8" to 1" width minimum. If chair pads are not used, the appearance of the carpet tile will decrease and maintenance and/or shifting of the tile may be required more frequently.

Loop Pile Construction

Carpet tile with loop pile constructions may experience yarn blossoming at the edges, which is consistent with this type of construction. Clipping or shearing the yarn edges can remedy this condition.

Tile Arrangement

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.

Certain carpet tile styles are recommended for different installation methods than others. (e.g. Some styles are recommended for quarter-turn only while others are more flexible). Check the product specification for the manufacturer's recommended installation methods for each particular carpet tile style.

Replacement Tiles

On occasion, it may be necessary to replace damaged or heavily soiled carpet tile. Tiles can be replaced with new tiles from onsite inventory or from other areas of the installation. A difference of appearance may be noticed when tile are replaced; this difference usually diminishes in a short time.

The procedures listed above are our best recommendations for installing carpet tile. This document is available upon request or on our web site at www.krausflooring.com. If you have further questions or require additional information, please contact your sales representative.

Follow CRI Installation Standards

In addition to the specific floor preparation and installation instructions detailed here, the Carpet and Rug Institute's Carpet Installation Standard must be followed. Please note that many of the Interface installation requirements may exceed or differ from those in the CRI Standard. In the event of conflict between the Kraus Installation Instructions and the CRI Standard, you should follow the Kraus Installation Instructions.

Standard Practice for pH Testing Concrete Floors

Prior To Installation

All concrete floors, old and new, should be tested for alkalinity using an approved pH test kit. The approved pH test kit should include pH test strips capable of measuring a range of 0 -14 along with deionized or distilled water. The area to be tested must be weather-tight and conditioned, via the building's HVAC system, to a temperature range of 65° - 85° Fahrenheit (18.3° - 29.4° Celsius) and a relative humidity range of 45% - 65%. These temperature and humidity ranges must be maintained for at least 48 hours prior to commencing the test, and at all times during the test. The concrete surface temperature should not be less than 65° Fahrenheit (18.3° Celsius).

All adhesives, coatings, finishes, dirt, curing compounds, sealants and other substances should be removed from the area to be tested. Non-chemical methods, such as sanding, grinding, or bead blasting should be used to remove these substances to achieve an appropriate state for testing. Any cleaning should take place a minimum of 48 hours before testing.

Once the above conditions have been met:

1. Abrade the surface using 100 grit sandpaper to a minimum depth of 1/32" but no more than 1/8".
2. Apply a small amount (approximately 1" in diameter) of de-ionized or distilled water.
3. Allow the de-ionized/distilled water to stand for 60 seconds.
4. Dip the 0-14 pH test strip into the puddle and remove.
5. Allow the test strip to stand for 15 seconds.
6. Compare to the pH chart in the test kit to determine pH level.
7. At least three pH tests must be performed for the first 1,000 square feet of space. One additional test should be performed for each additional 1,000 square feet thereafter.

The concrete slab should have an alkalinity level within the range as set forth on p. 2 to be suitable for carpet installation without a primer. Refer to the chart on p. 2. If pH levels fall outside of acceptable ranges STOP, and DO NOT proceed with installation. Call the Kraus Help Desk at (800) 245-0652.

NOTE: Results obtained by this method reflect only the conditions of the concrete at the time of testing. Stated pH limitation must be maintained for the life of the installation to avoid installation and product failures and to preserve warranty coverage.