

# Installation



## **CARPET TILE / NON WOVEN COMPOSITE**

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For best results review the product and product specific guidelines prior to indoor installation. Shaw will not be responsible for improper installation and installation of visual manufacturing defected tiles. Failure to follow guidelines may result in limiting warranty coverage. Contact Shaw Technical Support at 800.471.7429 for additional information.

### **CONDITION YOUR SITE AND TEST**

- HVAC System: Must be operational, maintaining the following conditions 24 hours prior to, during and after installation.
- Temperature: The installation site, carpet and adhesive must be between 50 ° F and 95 ° F. Adhesives will not function properly when exposed to temperatures outside this range. **Do not begin the installation if the subfloor temperature is below 50 ° F.**

- Humidity: The installation site's ambient relative humidity must not fall below 40%.
- Moisture Testing: Conduct subfloor moisture testing in accordance to the ASTM F-2170 (in-situ Relative Humidity) and/or ASTM F-1869 (Anhydrous Calcium Chloride).
- pH / Alkalinity: Conduct ASTM F-3441 pH/Alkalinity testing.

## SUBFLOOR TESTING GUIDELINES

### Shaw recommends moisture testing prior to starting the installation.

If excessive moisture is present, the general contractor or building owner must be advised of the readings, and a decision made regarding how to address the moisture or continue the installation.

The following chart breaks down the carpet backing system, grade of installation, the required subfloor testing requirements and the recommended adhesive for each:

Carpet Tile Backing	Installation Area	Testing Requirements	Adhesive Recommendations
EcoWorx ES	Below/On-grade/Above	Moisture and pH	ES (mill applied)
EcoWorx/EcoWorx BIO/StrataWorx	Below/On-grade	Moisture and pH	LokWorx Tabs,3000,5000,4151

EcoWorx/EcoWorx BIO/StrataWorx	Above Grade	No Testing Required	LokDots,3000,5000,4151
EcoLogix	Above Grade	No Testing Required	3000,5000,4151,ES (mill applied)
EcoWorx/EcoWorx BIO/StrataWorx	On or Below Grade *	No Testing Required	LokDots *

EcoLogix	On or Below Grade *	No Testing Required	4151*, ES (mill applied)
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\* LokDots and 4151 are moisture resistant products; however, they do not eliminate moisture.

## SURFACE PREPARATION

- Substrate must be structurally sound, clean, level and dry.
- Substrate must be free of dust, dirt, oil, grease, paint, curing agents, concrete sealers, adhesives, loosely bonded toppings, loose particles and any other substance or condition that may prevent or reduce adhesion.
- Fill depressions or cracks with a cementitious patching / leveling compound that meet or exceed Shaw Industries maximum moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.
- For cracks or saw cuts deeper than 1", follow the preparation and application instructions for Shaw QuikFill. QuikFill is a 2-part urethane treatment that prevents future damage from moisture penetrating to the surface of the slab that may damage or breakdown adhesives or unapproved patching compounds.
- For chemically abated substrates, ensure the proper cleaning methods have been taken to remove any residual abatement chemicals.
- Green sweeping compounds can be used but must be swept and removed immediately.
- For dusting / powdering / porous concrete / lightweight concrete prime with a latex primer such as 9050.
- For patches / levelers prime with a latex primer such as 9050.
- If installed over existing resilient flooring (one layer only), all tiles must be secure to the subfloor. Strip any wax from the surface.
- Wood Subfloors must be Wood Association Approved and primed with a latex primer such as 9050.
- Raised Access Flooring panels must be smooth, level, secure and free of any material that will affect the adhesive bond. Carpet tiles must be installed offset from access panel seams. Gaps between panels must not exceed 1/16" or (1.6mm).

**Note:** Do not sand or scrape Vinyl Asbestos tile (VAT) without proper attention to abatement procedures or precautions in accordance with all state and local codes. Shaw Industries makes no claims as to the acceptability of this procedure as a mitigation method in lieu of asbestos removal; and accepts no responsibility if any loose asbestos containing flooring are affected upon removal of a Shaw Industries commercial tile.

**Caution:** Do not allow cutback asphaltic adhesive or any other non-approved adhesive to come in contact with new adhesives. An installation failure could result. If this situation arises, contact Shaw Technical Support.

## PREPARE EXISTING ADHESIVE

- Remove existing adhesives to prevent adhesive incompatibility /reactions and bonding issues. When installing Ecologix backed tiles, removal of existing adhesive is not necessary as long as the existing adhesive is dry and tacky. The top ridges of existing adhesive should be flattened so the existing adhesive does not interfere with adhesion of new adhesive and Ecologix backing. Existing ridges should be no higher than 1/32".
- Cutback Adhesive: Wet scrape the adhesive, reduce to a well bonded residue and encapsulate with a product such as MRP.
- Do not use adhesive removers, they will adversely affect the new adhesive and product installed.

## LAY OUT YOUR SITE

- Start the carpet tile installation as near to the center of the room as possible and position it to use the largest perimeter cut tile.
- Snap a chalk line parallel to one major wall bisecting the starting point. It may be necessary to offset the center chalk line to assure that the perimeter tile will be a least half the size.
- Snap a second chalk line from the starting point at a 90° to the first line. Use a 3-4-5 or 6-8-10 triangle or larger on the room size to verify squareness. Meters or feet may be used to lay out the triangle in these proportions.

## APPLY ADHESIVE

- Use a full spread adhesive application.
- A premium pressure sensitive adhesive is recommended or 4151.
- Use a 3/8" nap paint roller or a 1/16" x 1/32" x 5/64" U-notch trowel. When using a 1/16" x 1/32" x 5/64" U-notch trowel to install StrataWorx products, this application method will increase the overall bond strength and reduce the ease of removing and replacing tiles.
- Allow the adhesive to dry completely before installing the carpet tile. Installing into wet adhesive will result in a permanent bond.

Adhesive	CaCl Limit	RH Limits	pH Limits
4151	12 lbs.	99%	12
4252	N/A	99%	12
3000	10 lbs.	95%	11
5000	15 lbs.	97%	5-11
LokDots*	N/A	N/A	N/A
LokWorx Tabs*	5 lbs.	85%	12
EcoLogix ES (mill applied)	10 lbs.	99%	12
EcoWorx ES (mill applied)	5 lbs.	85%	9

\* LokDots is not a moisture remediation solution. If visible moisture is present

or there are known moisture issues such as hydrostatic pressure, additional steps should be taken to address the moisture issues. For older slabs or slabs with a prior history of moisture related issues, Shaw Technical Support recommends moisture mitigation in the form of a 2-part epoxy system, such as MoistureTEK. For newer slabs with an intact moisture retarder, initial moisture levels should recede over time.

\* LokWorx Tabs conduct Relative Humidity and pH testing. In addition, concrete substrate moisture must be tested by the current version of ASTM F1869 anhydrous calcium chloride test. For concrete with a prior history of uncorrected moisture conditions or problems involving higher moisture levels, treat the concrete with a moisture mitigation product, prior to adhesive application.

## INSTALLATION

Install each full carton and complete an entire pallet before starting another pallet to minimize product variation. All Shaw carpet tiles have directional arrows on the back of the carpet tile to help facilitate the installation method for that product. The numbers within the arrows are for manufacturing purposes only and are not related to the installation.

- Begin the installation at the intersection of the two chalk lines. Continue until you complete one quadrant.
- Proceed to adjoining quadrants until all four quadrants have been completed. Large areas may require additional chalk lines bisecting the original four quadrants.
- Install the carpet tile using the pyramid technique. This will provide alignment checks during the installation. If the edges do not align and misalignment is noted, stop the installation and determine where the misalignment started and correct.
- Slide carpet tile into positions to prevent yarn from being trapped at the seams. Trapped yarn can adversely affect the appearance of the installation.
- EcoWorx ES and EcoLogix ES are manufactured with mill applied adhesive. For these products, remove the release liner to expose the adhesive and install the carpet tile.
- Tiles must fit snugly, but not be compressed. Press the entire surface of the tile to ensure adhesion.
- After installation, roll the entire installation with a 75 lb or greater roller to assure proper adhesion to the substrate.

**Flatwire cables** should be installed on top of the adhesive and centered underneath the carpet tile for better seam quality.

### Edge Trimming

- Measure and cut tile from the back using a straight edge. Ensure directional arrows are properly aligned with the installation.
- Or allow tile to cove up the wall and cut the carpet tile with a carpet knife, wall trimmer or similar too.
- Do not compress.

## **POST INSTALLATION CARE AND PROTECTION**

- Place plywood over the carpet when heavy objects are moved.
- Use protective chair mats under chairs and castors. This will prevent excessive wear to the face of the carpet and possible transfer of the pressure sensitive adhesive to the back of the carpet.
- Non-staining building material paper can be placed over the carpet tile to protect it if additional building construction activity is taking place.
- Do not use plastic sheeting. This will trap moisture.

**For best results, temperatures should remain above 50F and ambient humidity should not fall below 40%.**

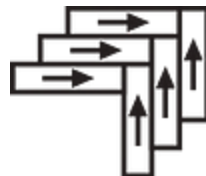
## 9 X 36 & 12 X 48 TILE INSTALLATION METHODS



ashlar



stagger



herringbone

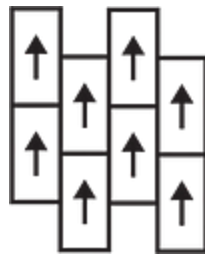


monolithic

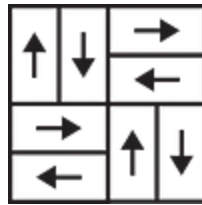


brick

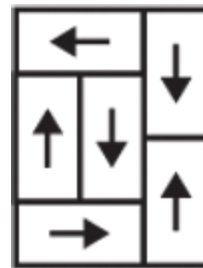
## 18 X 36 TILE INSTALLATION METHODS



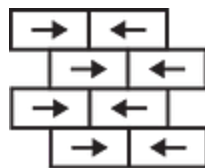
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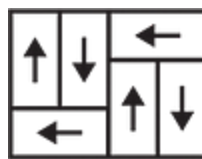
basketweave



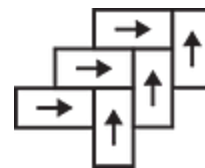
boxed in



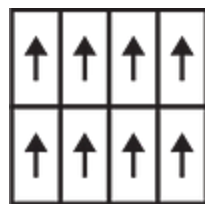
brick



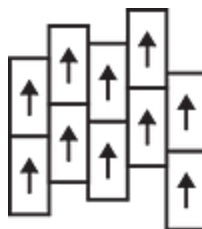
half basketweave



herringbone

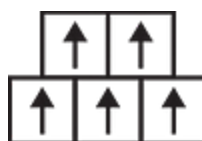
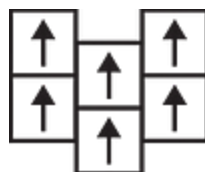


monolithic



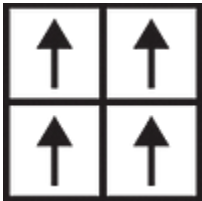
stagger

## 24 X 24 TILE INSTALLATION METHODS



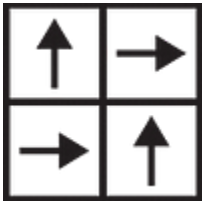


ashlar

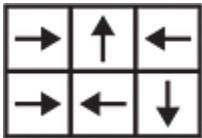


monolithic

brick



quarter turn



random