

## OVERVIEW

Every type of carpet is unique and needs special care. Flatwoven carpets are not installed in the same way as conventional loop pile carpets, as extra care must be taken. Please read the installation recommendations carefully before starting. Installation by a certified and experienced carpet installer will get the best results. We recommend no less than 5 years experience working with woven carpet.

Please note that the installation methods are provided for guidance only. The information is general and not applicable in all situations. Since carpet is a textile, it cannot be made to exact specifications and has allowable manufacturing tolerances as acknowledged by accepted industry standards.

The Carpet Manufacturer cannot be held responsible for the viability of the installation. We can only provide recommendations proven to be successful. It is up to the individual carpet installer and project leadership to follow all guidelines and industry standards for preparation, use of compatible premium quality products and utilization of suggested methods and techniques. We emphasize that the quality installation of this carpet is solely the responsibility of the installation professional.

## REQUIREMENTS BEFORE INSTALLATION

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### STORAGE

Carpet and related materials must be stored in a climate-controlled dry space with conditions similar to where the carpet will be subjected to during use. Carpets must be protected from frost, soil, dust, moisture, and other contaminants and stored on a flat surface.

### CONDITIONS

The carpet must be unwrapped together with all other materials, i.e. pad, subfloor, adhesive and other materials, in an acclimatized space at least 48 hours prior to cutting and installation. Unrolling the carpet is recommended to optimize the conditioning. The ideal room temperature lies between 64-80 °F (19-25 °C) and the relative humidity between 50-65%. Failure to condition to local environment may result in installation failure.

## METHODS

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Currently, SynSisal<sup>®</sup> recommends their products be installed using one of the following methods

- Direct Glue to the Floor
- Double Glue Method with Pad

## NOTEWORTHY

Please make sure that the carpet technicians are aware of and understand the content of the *SynSisal® Installation Guidelines* before starting the installation. In all cases, installers must adhere to the minimum standards as set forth in the [CRI-104 Standard for Installations of Commercial Carpet](#). In case of doubts or questions, please contact our [Technical Advisory Team](#). For your convenience, more information may be found at [www.SynSisal.com/technical](http://www.SynSisal.com/technical)

## SUBSTRATE PREPARATION:

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 Direct Glue Down and Double Stick Installations on Concrete 

Slab must be tested for moisture emissions prior to installation. Guidelines for the following tests must be followed. We strongly recommended that a qualified independent third-party testing agency be used for determining moisture and alkalinity conditions of a concrete slab well in advance of the installation, allowing time for corrective measures if necessary. Testing by an independent third-party specialist to determine installation suitability is a prudent and necessary safeguard for general contractors, owners, architects, and installation contractors to reduce the risk of concrete slab moisture related flooring failures. As a minimum, testing agencies or individuals are required to demonstrate verifiable experience in concrete moisture testing or be certified by a recognized organization.

## TESTING

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The following represent acceptable test results and methods prior to installing SynSisal®:

- **PH - Alkalinity**  
**ASTM F710** Reading must be no greater than 10 with the ideal range of PH reading of 7-10
- **RH - Relative Humidity Test Methods**  
**ASTM-F2170 (Recommended)** In-Situ Probe results no more than 60%  
**ASTM-F1869** Test Method Maximum Limit 3.0 lb/1000 ft<sup>2</sup> (170 µg/m<sup>2</sup>) per 24 hr.

## FLOOR PREPARATION

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**ASTM F710 Floor** must be prepared to meet *Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring*. The owner or general contractor is responsible for providing an acceptable substrate for the specified installation.

This includes, but not limited to following criteria:

- No cracks (in case of cracks, they must be patched and sealed properly)
- Unevenness must be repaired; the floor surface may not be rough and porous
- Residual adhesives and other soiling **must be removed properly by mechanical method as noted below or completely encapsulated with an appropriate self-leveling material**. Chemical stripping agents may leave residue, rendering new adhesive useless.

## NOTE

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For specific instruction for preparing a floor or removing a preexisting flooring, please familiarize yourself with the Resilient Floor Covering Institute's document, *Recommended Work Practices for Removal of Resilient Floor Coverings*.

- The floor temperature is not less than 59 °F (15 °C)
- In case of radiant heat floors, the carpet may not be continuously exposed to a higher temperature than 85 °F (30 °C) to avoid changes in material stability.
- The subfloor must be clean and vacuumed (dust-free)

Carpet and pad are required to be installed over a properly prepared substrate that is suitable for the specific product and installation method selected. All cracks, holes and flooring irregularities are required to be repaired to ensure a flat, smooth substrate, prevent accelerated wear and telegraphing substrate irregularities.

## INSTALLATION GUIDELINES –DIRECT GLUE DOWN

### PLANNING FOR SEAMS

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Keep seams to a minimum. When possible, position seams so that:

- Seams run the length of the area.
- Main traffic flow runs along rather than across the seam.
- Natural light does not strike across the seam.
- Seams are away from areas subject to pivoting traffic.
- Seams are not immediately in front of doorway openings.
- Avoid the occurrence of cross joins (head seams) as often as possible.

### TRANSITIONS TO OTHER SURFACES

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Where carpet transitions to other floor coverings, the carpet edges are required to be protected or covered with appropriate transition moldings. The edge of the hard surface flooring should not exceed a maximum of 1/16" (1.5875 mm) higher than the total carpet thickness. Apply a minimum of 1/8" (3.175 mm) bead of seam sealer to the edge of the carpet along the entire transition plane.

### WALL BASE

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Wall Base is recommended as part of the finished project. When vinyl or rubber wall base is used in a direct glue or double-stick carpet installation, cove base or base-with-toe is recommended.

### SEAMING

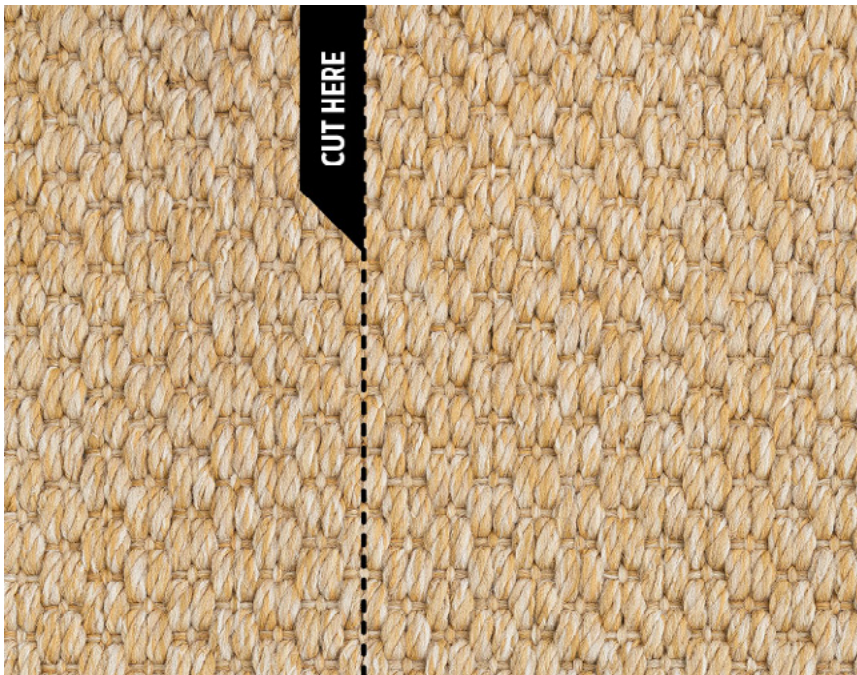
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With SynSisal®, we do not recommend head seams/cross joins. If a head seam is absolutely necessary, always cut precisely following the pattern line using similar techniques as outlined for side seams.

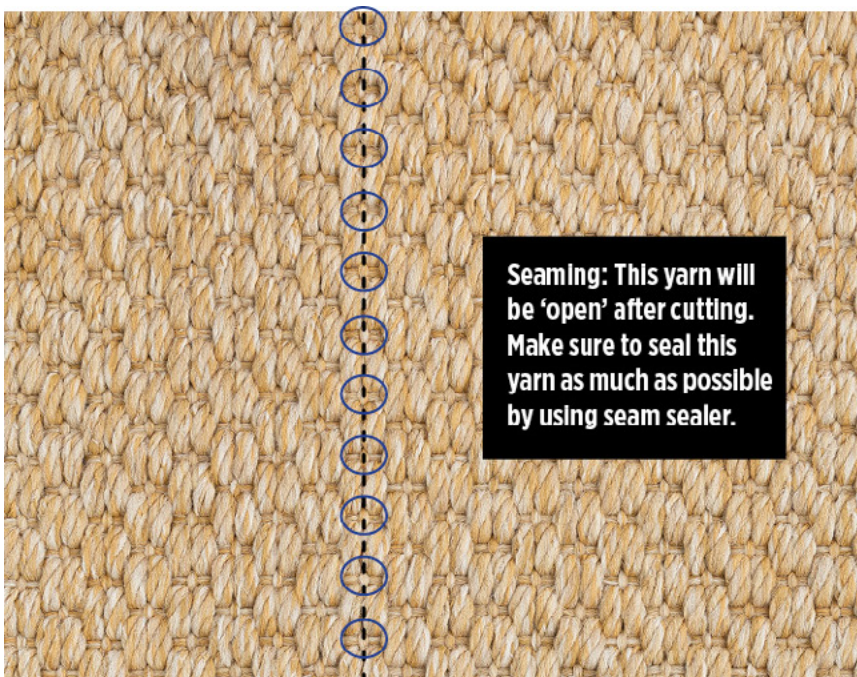
Head seams can also be finished with a binder bar or threshold intended for this purpose. For example, head seams may be used in doorways, when carpet goes from hall areas into adjacent rooms. Ensure that the seam is directly underneath the center of the door when in the closed position. The head seam must be covered with a metal, vinyl or rubber binding strip or threshold.

**CUTTING SEAMS PROPERLY: LANGLEY**

**⚠** When cutting seams, be mindful of the quality of material you are working with. Always use sharp blades. Do not use hook blades, as they will cause excessive and unnecessary fraying



**Figure 1:** Cut between Paired loops



**Figure 2:** Take care to leave lower lockstitch on “good” side of seam

**Seaming:** This yarn will be ‘open’ after cutting. Make sure to seal this yarn as much as possible by using seam sealer.



## PRIMARY SHEET

If possible given the layout, cut in approx. 1-2 inches (2.54 cm to 5 cm) from the factory edge using a top cutter or straight edge from the top to ensure a clean cut seam. Follow the warp row of the weave to avoid fraying and loosening of the weave. Seal edge immediately using a Premium Quality Edge Sealer, to prevent loss of yarn and blossoming of weft yarn. **NOTE:** Cutting must be made exactly along the pile-warp surface yarn.

## SECONDARY SHEET

Following the same method as above, cut the adjoining breadth of carpet at the appropriate point, to ensure proper pattern match.

The nature of backed, flatwoven carpet is such that a perfect pattern match will be less achievable with longer lengths of seams. This cannot be entirely avoided and, as with any backed textile, complete pattern match cannot be guaranteed.\*\*

\*\*Due to anomalies in the manufacturing process, or unavoidable job site situations, it may become necessary to trace cut secondary sheet to primary sheet across the warp yarns to achieve a tight-fitting seam. THIS SHOULD ONLY BE DONE IF IT BECOMES IMPOSSIBLE TO PLACE THE CUT EDGES TIGHTLY TOGETHER. If this becomes necessary, you must seal seams with ample seam sealer followed by a pinwheel or “porcupine” roller, to facilitate the blending of the face yarns with the seam sealer.

## SEAM SEALING AND EDGE SEALING

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After cutting seams, always use a premium quality edge sealer (we recommend the Chapco/Bostik brand brand contract grade adhesive and seam sealer) to seal and secure the cut edges. It is absolutely critical that every cut edge including seams, perimeters and openings are sealed. Edge sealer should be applied in sufficient quantity to seal all edges and secure face yarns. Sealer should cover the thickness of the primary and secondary backing with minimal contamination of the face yarns.

\* Failure to properly seal all edges may result in edge fraying, delamination, pile loss, seam separation and possible trip hazards.

## ADHESIVE USE AND SPECIFICATIONS

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We require the use of premium quality adhesives (we recommend the Chapco/Bostik brand contract grade adhesive and seam sealer) ONLY as best practice to ensure a quality result. Follow all instructions on the manufacturers label with regards to spread rate and proper open time. 100% adhesive transfer is required.

## TROWEL SPECIFICATION AND COVERAGE GUIDE

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As a guide for planning when installing carpet on concrete, the acceptable industry standard according to [CRI-104](#) for a typical commercial carpet is to use a 1/8" x 1/8" x 1/16" V-notched trowel. Proper trowling will result in an expected spread rate of approx. **8-10 yd<sup>2</sup> per gallon or 32-40 yd<sup>2</sup> per 4 gallon pail**. Regardless, you must follow adhesive manufacturers specific instructions once product is selected.

The adhesive should cover the subfloor completely including tightly to perimeter walls to prevent excess curling. Applying adhesive properly means a full 100% transfer of adhesive to the carpet backing once set into place and rolled.

Only apply as much adhesive as can be covered within the working time allowed. The application rates and Open Times specified in the supplier's guide must be followed to prevent insufficient bonding. For all recommendations, please read the instructions of the adhesive supplier.

Once the adhesive has been uniformly applied and the "tack time" (depending on the climatic conditions in the room and properties of the floor) observed, the carpet can be placed into the glue. At seamed areas butt the two edges of the pre-cut lengths together while ensuring that the carpet is not under strain.

We recommend folding back the carpet along the seams, i.e. to allow each seam to be laid precisely in position and glued. Please make sure not to shift the individual lengths.

When finished adhering the carpet, roll the full area of carpet with no less than **75 and no more than 100 lb.** roller. Be sure to remove all trapped air bubbles.

For the best result, the carpet should not be trimmed around the walls immediately after installing, but rather wait for 24 hours to let it dry, which allows for possible shrinkage. Wall base is to be applied after all walls have been trimmed in net to the wall.

## FINAL FINISHING

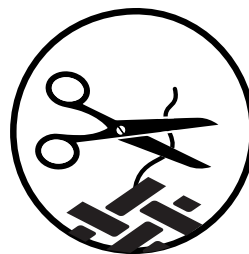
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The entire installation area should be left clean and tidy, cleared of tools and waste. The carpet should be carefully inspected to ensure it is totally flat and free from air bubbles. Loose fibers should be removed and, if required, sharp napping scissors should be used.

**DO NOT PULL LOOSE YARNS BUT RATHER, CLIP THEM AT THE BASE TO PREVENT RAVELING.**



**DO NOT PULL** ✗



**PLEASE CUT** ✓

## GENERAL AFTERCARE – POST INSTALLATION

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### CURING ADHESIVES

It is recommended that pedestrian traffic be restricted to necessary installation personnel only for a minimum of 24-48 hours to allow adhesives to cure properly. Premature traffic will cause installation failure. Restrict carpet exposure to water from cleaning or other sources for a minimum of 30 days. Room temperature should not fall below 50°F (10°C).

DO NOT COVER COMPLETED AREAS WITH PLASTIC. The newly installed carpet should be protected against damage and contamination from traffic and craftsmen of other trades. If protection of the area is necessary, be sure to use a breathable material, to allow moisture from the adhesive to escape. Otherwise installation failure may result. Take care not to use products that may cause a slipping or tripping hazard. Plywood, Masonite, pressboard or some other hardboard may be used, especially if exposed to rolling traffic.

Like most textile floorcoverings, flatwoven carpet can be damaged by the mechanical action of sharp-edges, heavy objects etc Therefore, do not push furniture over the carpet as this will cause permanent damage by tearing or friction burns. Furniture sleds made to distribute weight may be used, or rolling dollies when necessary, but no sooner than 24 hours after installation is complete unless hardboards are employed to protect the carpeted surface.

*\* The manufacturer does not accept any liability for damage resulting from non-observance of these installation guidelines. Claims for compensation are, therefore, not possible. The information given in these installation guidelines are of a general nature only and comply with commonly used, industry recognized methods and techniques.*