

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

# INSTALLATION INSTRUCTIONS

---

SynSisal<sup>®</sup> is a flatwoven carpet that requires special care during installation. **Flatwoven carpets are not installed in the same way as conventional loop pile carpets and therefore require specialized tools and methods for a successful installation.** Please read the following installation recommendations carefully before starting the project.

**Installation by a certified SynSisal<sup>®</sup> carpet installer, with no less than 5 years experience with woven carpet, will retain all applicable warranties on the basis that the instructions below are followed.**

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, and 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 the specified adhesive and specified underlays** with 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.**



**These instructions must be followed to retain Manufacturer's Warranties.**

*Note: International SynSisal<sup>®</sup> guidelines do not apply to Australian SynSisal<sup>®</sup> installations, please always refer to [www.gibbonarchitectural.com.au](http://www.gibbonarchitectural.com.au).*

## PRE-INSTALLATION CHECKS

---

The following instructions are to be reviewed in conjunction with **AS/NZS 2455.1:2019 Standards (or current edition)** prior to installing SynSisal<sup>®</sup> carpet. For subfloor instructions please refer to the sub-floor preparation instructions below. Gibbon Architectural will not be held responsible or warrant any installation that is not in accordance with these instructions.

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### STORAGE

---

Carpet and related materials must be stored in a climate-controlled dry space with similar conditions to the environment in which the carpet will be used after installation. Carpets must be protected from frost, soil, dust, moisture, extreme temperatures, and other contaminants and stored on a flat surface.

### ACCLIMATISATION

---

**IMPERATIVE** – Be aware that SynSisal<sup>®</sup> is a flatwoven broadloom carpet – to avoid issues the carpet must be installed in a controlled temperature & humidity environment:

- **SynSisal<sup>®</sup> carpet must be unwrapped from outer plastic wrap, unrolled and allowed to acclimatize.** Failure to condition to local environment may result in installation failure.
- **Minimum 48hours in controlled environment ahead of installation, for the duration of the installation and 48 hours post installation.**

**Ensure substrate and ambient conditions are to Australian Standards, while also in accordance with the manufacturer's recommendations:**

- The ideal room temperature lies between 19–25°C with a relative humidity between 50–65%, and must not exceed conditions outlined in the Australian Standards **AS/NZS 2455.1:2019 (or current edition)**.
- Ambient humidity levels to be below 75% or mitigated by mechanical extraction if required.
- Install SynSisal<sup>®</sup> only where relative humidity does not exceed 75% or fall below 30%.

**NOTE:**

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

**Failure to condition to the local environment may result in installation failure.**

### CROSS CHECK

---

All SynSisal<sup>®</sup> carpet delivered should be inspected prior to installation to ensure the following:

- The correct style | colour | quantity | dye batch have been supplied.
- The carpet is checked for any irregularities or faults in the weave.
- No transport damage has occurred. If any sign of damage, please photograph before

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

opening packaging and email photos to [sales@gibbongroup.com.au](mailto:sales@gibbongroup.com.au).

**DO NOT cut or install SynSisal<sup>®</sup> carpet** if any of the above issues are noted.

**PLEASE BE AWARE – that once the carpet is cut, you own it. Please double check.**

### SUBFLOOR PREPARATION

---



**NOTE :** *Please ensure the carpet technicians are aware of and understand the content of the SynSisal<sup>®</sup> Installation Guidelines before starting the installation. In all cases, installers must adhere to the minimum standards as set forth in AS/NZS 2455.1:2019 (or current AS/NZS Standards) for Installations of Commercial woven Carpet. Please also contact our [Technical Advisory Team](#) at Gibbon Architectural if you have any questions or concerns about the job.*

**SynSisal<sup>®</sup> carpet is to be installed on dry, clean, and properly prepared subfloors as per AS/NZS 2455.1:2019 (or latest edition).** A primer may be required if installing onto a high porosity sub-floor. Gibbon Architectural are not responsible for any failure of a SynSisal<sup>®</sup> carpet, which is caused through moisture related issues, poor or incorrect floor preparation, incorrect installation techniques or any other failures which arise through the installer not following these instructions in conjunction with Australian / New Zealand Standards.

**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, patch and seal before installation)
- Repair any unevenness so the floor is level. The floor surface should not be rough and porous
- Residual adhesives and other debris must be removed properly by mechanical method. If residual debris cannot be removed mechanically, patch as needed to assure a clean and level floor.
- NOTE : Chemical stripping agents may leave residue, rendering new adhesive useless.

**Shrinkage or bubbling of the SynSisal<sup>®</sup> carpet can occur due to any of the following factors where the adhesive bond to the subfloor has been compromised:**

- Moisture in the subfloor
- Watered down/faulty/incorrect adhesive
- Insufficient allowances for proper tack of the adhesive before laying in the carpet.
- Incorrect / unspecified underlays

**SHRINKAGE IS NOT A MANUFACTURING FAULT.**

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines



**IMPORTANT: Subfloor RH for installation of SynSisal<sup>®</sup>** is to be considered satisfactory when relative humidity reading with an in-situ probe does not exceed 60%.

Bubbling around perimeters can also occur when too much allowance is made for shrinkage and carpet is cut in too tight against walls. **SynSisal<sup>®</sup> carpet does not shrink if correct procedures have been followed.**

[Sub Floor Preparation document \(PDF\) here](#)

<< Or scan the QR code to view

## SUBFLOOR PREPARATION (cont'd)



### DIRECT STICK & DUAL BOND – INSTALLATIONS ON CONCRETE

**Test slab for moisture emissions prior to installation.** We strongly recommended that a qualified independent third-party testing agency determine the moisture and alkalinity conditions of a concrete slab prior to installation, allowing time for corrective measures if necessary. Third-party testing is a safeguard to reduce the risk of moisture-related flooring failures.

## TESTING

Some sort of moisture testing must always be done prior to installation. The following represent some acceptable test results and methods prior to installing SynSisal<sup>®</sup>:

- **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.

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### PLANNING FOR SEAMS

---

#### DIRECT STICK & DUAL-BOND

**IMPORTANT: All seams must be joined using Dual-Bond Heat Bond Tape.**

**Keep seams to a minimum.**

**DUAL BOND** : When possible, position seams so that:

- Underlay to be cut to the longest lengths possible and run perpendicular to carpet seams.
- If this is not possible, parallel underlay seams to be off-set a minimum of 15cm from carpet seam.

**When possible, position seams so that:**

- Seams should be butted with no compression or gaps
- 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

### SEAM SEALING & PERIMETER EDGE SEALING

---



**DIRECT STICK & DUAL BOND:** It is absolutely critical that every exposed cut edge be sealed.

Always use a premium quality **edge sealer on every cut edge**, including seams, door jams, perimeters between pad and wall (if no skirting is present) and transition areas.

Edge sealer should be applied in sufficient quantity to seal all edges and secure face yarns. The sealer should cover the thickness of the primary and secondary backing with minimal contamination of the face yarns.

**Seams to be sealed at edge before using dual-bond heat bond tape in all direct stick and dual bond installations.**

Recommended:

- [Nexus 440 Skirting Contact – 1.4 & 20L](#)  
[No. 145 Seam Adhesive Bottle – Crain Tools](#)

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

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### CROSS JOINS

---

With SynSisal<sup>®</sup>, cross joins are unacceptable\*\* and will not be warranted.

\*\*In the situations where cross joins are required, eg. in doorways, where 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 cross join must be covered with a wood, hard metal, vinyl, or rubber transition**

### TRANSITIONS TO OTHER SURFACES

---

#### INSERTED UP TO HARD SURFACE

For transition to hard surfaces ensure appropriate allowance for smooth transition, use either architectural or residential GRIPPER (correct profile of GRIPPER must match profile of underlay). Carpet edges to be protected with appropriate transition moldings. **Apply minimum of 3.175 mm bead of seam sealer to all carpet edges along the entire transition plane** > Tightly tuck over gripper to transition point. Edge of hard flooring to not exceed a maximum of 1.6 mm higher than total carpet thickness.

### PERIMETERS

---

Only cut in around the perimeter once the adhesive has set.

**DUAL BOND:** When installing over an underlay, ensure that the carpet is trimmed neatly to wall finish, using either architectural or residential GRIPPER (**ensure that the correct profile of GRIPPER is used to match the profile of the underlay used**). **Apply a minimum of 3.5 mm bead of seam sealer to all carpet edges along the entire transition plane**, and tightly tuck over the gripper to wall. Temporary tacking can be an additional safeguard if deemed necessary. Otherwise provision to be made to fit under skirtings.

### SKIRTINGS

---

Skirtings are 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.

### STAIRS

---

In contract situations stair nosing should be used. In residential situations, SynSisal<sup>®</sup> carpet should be conventionally installed using specified underlay.

### UNDERFLOOR HEATING

---

Both SynSisal<sup>®</sup> and its specified adhesive are suitable for use over an in-floor heating system; however, it is recommended that the heating be switched off for 48hrs prior to, and for 48hrs after installation.

**Temperature is to be increased gradually when turned back on.**

NOTE: DO NOT USE with blanket type heating system.

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### ACCESS FLOORS

---

SynSisal<sup>®</sup> carpet cannot be direct stuck onto metal access floors.

Options either: Dual Bond method - or install over a Masonite/Hardboard underlay.

### CUTTING SEAMS PROPERLY

---

#### PRIMARY – SIDE ONE

If possible, given the layout, cut in approx. 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.** NOTE: Cutting must be made exactly along the pile-warp surface yarn.

#### SECONDARY – SIDE TWO


Following the same method as above, cut both sides of the seam with the outside blade, leaving the lock- stitch on the seam side to ensure the integrity of the seam.

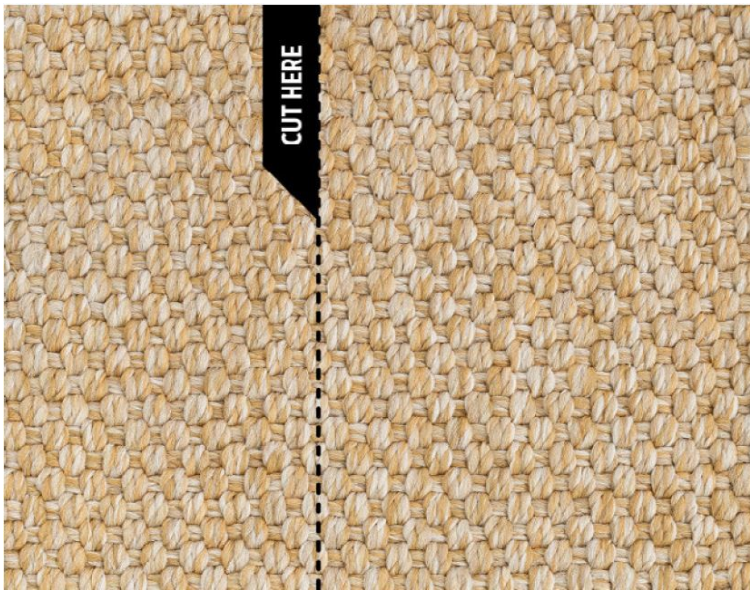
**Note:** The strength of the seam is more important than keeping the pattern match or weave repeat during the seam. The nature of backed and flatwoven carpet is such that a perfect pattern match will be less achievable with longer lengths of seams. This cannot be entirely avoided and, as with any backed textile, a 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 the secondary side to primary side 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.**

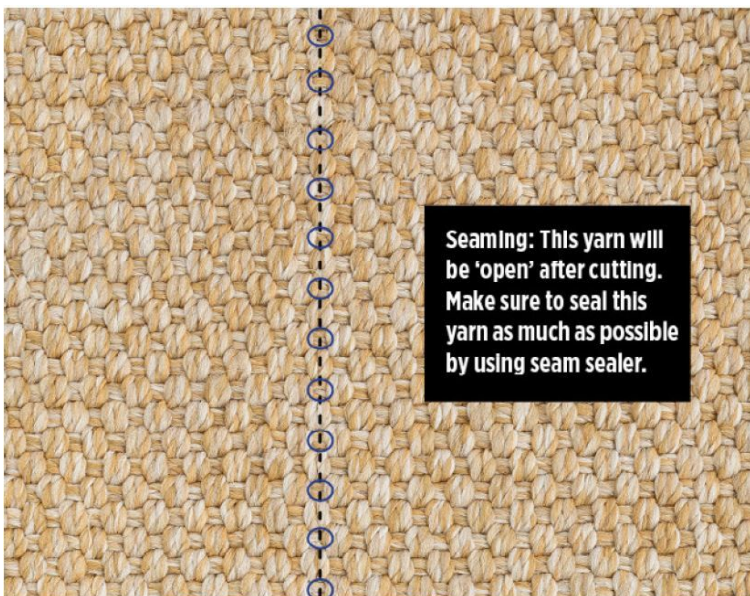
## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### CUTTING SEAMS – RAVENNA

 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 3rd row in from the center seam.



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

Score first to open the row.

Cut with the outside blade.

**Seal seams** and after the seam is put together, trim with duck-billed shears.



## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### SPECIFIED ADHESIVE

---

#### SynSisal<sup>®</sup> S340 Carpet Adhesive

**DESCRIPTION:** Due to SynSisal<sup>®</sup>'s flatwoven construction, the permanent bond adhesive **SynSisal<sup>®</sup> S340 Adhesive must be used**. Specially formulated for SynSisal<sup>®</sup> carpet, SynSisal<sup>®</sup> S340 Carpet Adhesive is a high solids, hard-set, water based latex adhesive and has been developed with a low water content to limit the issue of excessive moisture where shrinkage can occur.

### DIRECTIONS FOR USE

---

All surfaces to be bonded should be dry, smooth, and free of any contaminations that may affect bond, and in accordance to Australian Standards AS/NZS 2455.1:2019 (or current AS/NZS Standards) Textile Floorcoverings installation practice. It is recommended that all highly absorbent substrates be primed with a suitable primer prior to the application of adhesive. The minimum subfloor temperature before commencing surface preparation and adhesive application is 10°C.

**For SynSisal carpets, moisture testing must always be carried out prior to installation.** Relative Humidity of subfloor must be **no more than 60% RH** with In-Situ Probe method (ASTM-F2170) or no more than 3 lb/1000 ft<sup>2</sup> (170 µg/m<sup>2</sup>) per 24 hr with Anhydrous Calcium Chloride method (ASTM-F1869). pH reading for subfloor must be no greater than 10 with ideal range of pH reading between 7-10.

It is recommended that all highly absorbent substrates be primed with a suitable Acrylic Floor & Wall primer prior to the application of adhesive. The minimum subfloor temperature before commencing surface preparation and adhesive application is 10°C.

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### TROWEL SPECIFICATION

---

SynSisal<sup>®</sup> S340 Carpet Adhesive should be applied using one of the following notched trowels for your type of installation :

#### DIRECT STICK

---

SynSisal<sup>®</sup> to subfloor

**“V3”** 3.2mm x 1.6mm x 3.2mm **“V”** notched trowel

Coverage approx 2m<sup>2</sup> /litre

#### DUAL BOND

---

SynSisal<sup>®</sup> S340 Adhesive must be used to bond both the underlay to the subfloor and carpet to underlay.

SynSisal<sup>®</sup> to underlay.

**“V3”** 3.2mm x 1.6mm x 3.2mm **“V”** notched trowel

Coverage approx 2m<sup>2</sup> /litre

Underlay direct to subfloor

**“V1”** 1.6mm x 1.6mm x 1.6mm **“V”** notched trowel

Coverage approx 5m<sup>2</sup>/litre.

### ADHESIVE APPLICATION

---

Spread **SynSisal<sup>®</sup> S340 Adhesive** with the recommended notched trowel and coverage rate. **SynSisal<sup>®</sup> MUST be 100% adhered to the subfloor – no spot gluing –** to prevent expansion, contraction and bubbling resulting from changes in humidity.

**USE OF NON-SPECIFIED ADHESIVES – OR SPOT GLUING – WILL VOID WARRANTIES.**

The adhesive should cover the subfloor completely and spread 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. The only way to achieve 100% transfer of adhesive to carpet is to ensure that 100% of the subfloor is covered with adhesive.

Adhesive should be allowed to tack-up prior to placing into the still-wet film of adhesive. Tack-up time will depend on atmospheric conditions. Only apply as much adhesive as can be covered within the working time allowed.

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

**Correct tack-up is evident once adhesive is tacky and when pulled away, strings or cobwebs should be apparent.** If the correct tack has not developed, wait five minutes, then re-check every few minutes until cobwebs appear. **Check to ensure that complete transfer of adhesive to the floorcovering has occurred.**

Once the adhesive has been uniformly applied and the “tack time” observed, the carpet can be placed on the glue. Place carpet and press from centre outwards to exclude air and ensure overall contact with the adhesive. Roll : end-to-end and side-to-side using a 68kg roller. Roll again after 30 minutes. In 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 of carpet.

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 installation, but wait 24 hours to let it dry, which allows for possible shrinkage to occur. Apply skirtings after all walls have been trimmed in net to the wall.

## SPECIFIED UNDERLAY

---

SynSisal<sup>®</sup> Carpet

### AIRSTEP CARPET UNDERLAY

- BOUNCE 470 – 4.7mm
- BOUNCE 650 – 6.5mm (Domestic only)

The carpet must be 100% adhered to the underlay and the underlay 100% adhered to the subfloor using the **specified adhesive SynSisal<sup>®</sup> S340 Adhesive.** **Do not use a pressure sensitive / release adhesive at any stage.**

Adhesive tack-up time will be longer over underlay as it is non-absorbent. **Incorrect underlays will cause bubbling and/or shrinkage and will void manufacturer’s warranty.**

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

### FINAL FINISHING

---

The entire installation area should be left clean and tidy, clear 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 – CLIP AT BASE TO PREVENT UNRAVELING



DO NOT PULL ✗



PLEASE CUT ✓

### UPON COMPLETION

---

**IMPORTANT:** 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 10°C.

### MATERIALS FOR PROTECTION

---

**IMPORTANT:**

- **Do not cover with any impervious protective material to avoid serious damage to textile floorcoverings due to condensation (AS/NZS: 2455 3.11).**

The newly installed carpet should be protected against damage and contamination from foot traffic and construction debris. Do not cover any portion of the carpet with plastic or any other material that would limit breathability. If the carpet cannot breathe after installation, moisture can

## SynSisal<sup>®</sup> RAVENNA – Installation Guidelines

become trapped, leading to issues with adhesive not curing, shrinkage or serious damage to the textile flooring causing installation failure.

- Protect the installation from rolling traffic by using sheets of hardboard or plywood in potentially affected areas. Do not place plastic sheeting over any carpet installation because it may present a slip hazard. NOTE: Self-adhering plastic films may leave residues that result in rapid soiling after removal
- Like most textile floorcoverings, flatwoven carpets can be damaged by sharp edges, heavy objects, and any other mechanical disruptions. Therefore, do not push furniture over the carpet as this will cause permanent damage from tearing or friction burns. Furniture sleds made to distribute weight or rolling dollies may be used, but no sooner than 24-48 hours after installation is complete unless hardboards are employed to protect the carpeted surface.

## MAINTAIN TEMPERATURE

---

- **Maintain temperature of carpeted areas to above 10°C for 48 hours after installation.**

*\* 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.*