

SUBFLOOR PREPARATION

SYNSISAL

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SUB FLOOR PREPARATION

CARPET ROLL | ADHERED RUGS - SYNSISAL

Due to the low profile thickness of SynSisal and preferred direct stick installation method, the substrate should be **prepared to a standard to receive resilient flooring** and therefore, all subfloor preparation must **comply with Australian Standard AS1884:2021 (or latest edition)** which states:

- **Planeness** in any subfloor level must not exceed 4mm under a 2 lineal metre straight edge. Raised points must be sanded/ground down and depressions filled using levelling compound.
- **Abrupt deviation tolerance**- Where a straightedge 150 mm long is placed at any position at rest at two points on the surface, no abrupt surface deviation shall be more than 0.5 mm below the straightedge.
- **Smoothness** - The surface shall be regular with no holes, lumps or sudden rise or fall and with homogenous appearance.
- **Soundness** - where existing timber, plywood or particleboard subfloors are to be used as a substrate, worn rough cupped or warped surfaces shall be sanded or filled, and retain structural integrity.

All SynSisal carpet products (broadloom or adhered rug) that are to be adhered to a substrate are to be installed on dry, clean, and properly prepared subfloors as per AS 1884:2021 (or latest edition).

Gibbon Architectural are not responsible for any failure of a product 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 Standards.

Shrinkage or bubbling of the carpet can occur and/or the adhesive bond to the subfloor may be compromised due to the following situations:

- Moisture in the subfloor
- Watered down/faulty/incorrect adhesive
- Insufficient allowances for proper tack of the adhesive before laying in the carpet.
- If the subfloor requires levelling, use a sand/cement screed.

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

A primer may be required if installing onto a high porosity sub-floor. Please contact Gibbon Architectural for direction.

Surface Preparation

1. All subfloors must be structurally sound, solid, well-fastened, dry, clean and free of dust, oil, grease, tar, paint, wax, curing agents, primers, sealers, loosely bonded toppings, loose particles and any other substance or condition that may reduce or prevent adhesion.
2. Painted surfaces must be sanded and scarified completely to expose the substrate, using appropriate safety precautions.
3. Various underlayments:
 - a. Concrete subfloors must be dry.
 - b. All wooden floors must be well-ventilated from below.
 - c. Cement terrazzo must be sound, solid, flawless, stripped clean and free of any contaminants or conditions that may prevent or reduce adhesion. Roughen surface by sanding or scarifying using appropriate safety precautions.

Moisture & Alkalinity

Excessive moisture and/or high alkalinity (i.e., high pH) in a concrete substrate can cause the floorcoverings, adhesives, leveling compounds, etc. to fail and therefore all concrete slabs, regardless of age, should be correctly tested for moisture and alkalinity prior to the installation of any Gibbon Architectural ROLL carpet.

Even 20-year-old concrete substrates have been known to have moisture issues later in life through changes in the surrounding environment. This includes, but is not limited to, new gardens installed which sit level with or higher than the existing slab thus supplying a potential water source to the existing concrete slab, leaking pipes in or near the slab, new construction work undertaken by the builder during refurbishment of the site where water can be used by numerous different trades.

Dryness shall be considered satisfactory when the relative humidity does not exceed 75% via Hygrometer test, (or the values allowed by the specific Manufacturer, which must be adhered to in all instances).

The Recommended Adhesive for the specific Gibbon Architectural carpet ROLL product must be used for all direct stick and dual bond installations, and all moisture testing must be carried out in accordance with the Recommended Adhesive installation instructions. Moisture meters that comply with Australian Standards are available for purchase through Gibbon Trade, [Gibbon Trade Moisture Meters](#), and all testing is to be carried out in accordance with the instrument manufacturer's instructions or the moisture test results could be considered to be non-conforming.

Concrete Substrates

LEVEL

To comply with AS1884 self levelling concrete can be used to level the floor space. This should still be Poly-vaced and feathered as needed to ensure no deviations in the floor.

If it is deemed that the substrate is within the AS1884 tolerances then it is recommended to feather finish the floor space to ensure any small holes or pips are infilled. Poly-vacing the space is then also recommended.

Testing alkalinity

Testing the alkalinity of the subfloor is to be done using either pH test strips or a pH meter, and the manufacturer's instructions should always be followed.

Ensure the concrete surface is porous and free of any old adhesives, primers, curing compounds, surface contaminants, etc. Care is to be taken to ensure the surface is not over cleaned. However, if the surface is burnished or non-porous the surface will need to be removed to allow a mechanical key between the subfloor and the adhesive or leveling compound.

In all cases pH testing must meet Australian Standards and should be done just prior to the installation of the ROLL carpet so that the pH readings are taken on the concrete surface that

the adhesive or leveling compound is to be installed over.

Undertaking pH testing of distilled or deionized water that is beading on the surface of the concrete substrate or testing a substrate that has just been mechanically prepared, may result in inaccurate pH test results.

Please note the following:

- All RH and pH test results should be documented and photographed for your records in case there is a moisture related problem in the future.
- RH and pH test results only indicate the RH and pH of the concrete substrate at the time of testing. The RH and pH of the concrete can increase or decrease over time due to outside influences, so it is critical that all test results are documented and photographed at the time of testing.
- Experience has shown that the RH and pH test results tend to be more accurate when the HVAC system has been in operation 24/7 for 2 weeks prior to testing.

Timber Substrates

Level

To comply with AS1884 the substrate should have FC sheeting or similar plyboard applied over to ensure level/smooth. All joints should be sanded and feathered. FC or Ply needs to be glued and/or screwed to the substrate.

Moisture

The moisture content of timber, plywood and particle board subfloors shall be considered sufficiently dry when the moisture content is between 10% - 14%. Suitable testing procedures for timber and particle board subfloors may be found in AS/NZS 1080.1:2012 and suitable testing procedures for plywood subfloors may be found in AS/NZS 2098.11:2015

It is the responsibility of the installation contractor to ensure the substrate is correctly moisture tested, properly prepared prior to the installation of any Gibbon Architectural ROLL carpet and complies with Australian Standards.

Determining the dryness of timber substrates prior to installing the carpet ROLL:

The subfloor should be dry, sound and level - as per AS/NZS 2455.1:2019 (or latest edition). Please refer to Adhesive Surface Preparation for the Recommended Adhesives below. For more detailed information, download the technical data sheet here:

- [Synsisal S340 Technical Data Sheet](#)