



**INSTALLATION INSTRUCTIONS**

**SHANHUA CARPETS**

**Thank you** for purchasing a Shanhua Woven Carpet. With the correct installation, you can optimise the appearance and performance of your Shanhua Carpet and look forward to a positive carpet experience.

Shanhua Carpets recommends that all carpets be installed in accordance with industry standards and best practices as outlined in Australian/New Zealand Standard AS/NZS 2455.1.2007. These instructions are for guidance only and not to be solely relied on for every installation application.

## HANDLING/STORAGE

- Carpet should be examined for any damage and if damaged notify Shanhua immediately.
- Shanhua Carpet is delivered in fully sealed wrappings.
- Before carpet cutting the carpet installer must perform measurements on each section of carpet roll prepared for installation.
- Before installing the carpet you should verify the product received is the product that was ordered and check for any visible defects.
- Storage facilities must be clean and dry.
- Flat carpet racking should be provided to store the carpet off the ground.
- Carpet rolls in direct contact with each other should not be stacked more than three (3) rolls high.
- If it is necessary to fold the carpet to enter a building, any bending or folding should be minimised and laid out on the floor as soon as practicable, but not exceeding 2 hours.
- Carpet should be transported on trolleys with carpet cradles.
- Forklifts must be equipped with carpet probes.



## UNDERSTANDING CARPET MANUFACTURERS TOLERANCES

A successful patterned carpet installation requires a thorough understanding of patterned carpet characteristics by persons involved with carpet selection and installation.

Carpet is a textile fabric subject to inevitable process variations, which are more critical when patterns are involved. Specialists, who are experienced in the installation of patterned carpet, can effectively make adjustments within manufacturing tolerances to provide a successful installation. Installation of patterned carpet requires more time and expertise.

## CONDITIONING

All carpet should be dry-laid prior to installation to evaluate the visual effect and acclimatised to the site conditions for at least 12 to 24 hours.

### **Site Preparation (Refer to Australian Standard AS/NZS 2455 Part 1 General Appendix “B”)**

The sub-floor surface conditions should meet the Australian Standards for substrate surfaces and must be free of cracks, ridges, retentions and foreign deposits. The floor should be solid, fix, dry, level and clean, without edges and cracks and without oil or grease stains.

If existing material is to be removed, the sub-floor must be prepared to meet standards.

There has to be a “normal” temperature and humidity in the room during the installation and until a possible adhesive is completely dry. Recommended temperature is 10 to 35 degrees Celsius and the relative air humidity should be 30 to 75%.

Do not install carpet over concrete slabs before checking moisture content and curing agent compatibility of slab. All subfloors should be tested for moisture content prior to priming or application of adhesive. All substrate surfaces are to be primed to achieve best results.

The moisture content of the sub floor should not exceed 5.5% and the relative humidity should not exceed 70% – this is particularly important in new buildings.

## GENERAL RECOMMENDATIONS

Floor primer can help assure a correct surface. If the floor is not in the right condition, the carpet cannot be installed correctly; the capacities of the carpet are reduced or destroyed. At the same time this will have a negative impact on the final visual impression of the carpet.

It is important that the carpet and subfloor and possible other materials (including adhesive) are acclimatized. This is done by placing the materials in the room/environment in question at least 24 hours prior to cutting and installation.

In order to achieve the best possible result, all joints should be avoided to the extent possible in the most exposed places e.g. in front of lifts, doorways and entrance areas.

Note that joints always have to be full fixated and tape seamed – in case of installation on grippers, the tape always has to be heat seamed.

Always remember a throughout pattern match before full fixing of the carpet.

Possible natural variations in the carpet (pattern bowing etc.) should always be straightened during the installation and before the final fixing/adhesion of the carpet.

Pile should lie towards the entrance where possible and “pile lay” pointing away from stair riser when lying on stairs



## DIRECT STICK

The adhesive should be spread over the whole area. Don't apply it point wise or at the walls only. Proper usage of the carpet is guaranteed only if adhesive is spread over the whole substrate.

Appropriate double bond heat tape shall be used for the direct-stick method of installation.

Make sure all seams and cross – joins are sealed with adhesive and a minimum 3mm bead of adhesive is to be applied to one side of the seam where both cut edges have been applied with 60% natural latex.

Roll the carpet in both lengthwise and widthways with a roller weighting 25-35kg.

Carpet already glued must be pressed down over the whole floor, trimmed and then finishing strips must be mounted if not finishing onto wooden batons or gripper. Don't put furniture or other equipment immediately after carpet installation. Adhesive reaches its full strength after approx. 24 hours.

## DOUBLE-BOND/DUAL BOND/DOUBLE STICK

This method of installation consists in gluing down underlay to the substrate with a special fastening agent which ensures lifting of underlay without any underlay residuals on the substrate (vertical movement) as well as avoids any carpet and underlay movement on the floor (horizontal movement).

Then, the carpet is glued to the underlay using carpet adhesive. This method should be used for heavy duty contract carpets (restaurants, hotel corridors...). The sturdier the underlay the more dimensionally stable the carpet will be.

For double-bond installation, use, Roberts **hot melt tape** 50-350, Polymer 190 (Double Stick) seaming tape or its equal. Test for adhesive bond. Pre-test for proper heat setting to prevent distorting face fibres, and use a heat shield on the iron.

- Butt two prepared pieces of fitted carpet the full length of the seam. Stay nail if necessary with an initial tension and pattern matching using a knee kicker.
- Roll out tape and centre under seam.
- All joins shall be close fitting when positioned

- Make sure all seams and cross – joins are sealed with adhesive and a minimum 3mm bead of adhesive is to be applied to one side of the seam where both cut edges have been applied with 60% natural latex.
- Roll the carpet in both lengthwise and widthways with a roller weighting 25 – 35kg.
- Pre-heat the iron in accordance with tape manufacturer’ recommendations.
- Start at the end of the seam and **move the iron in the same direction as the pile lay of the carpet**. If the carpet seam is long, it may be necessary to start at the centre of the matched seam, and then proceed to the end.
- Slide the iron using a slow steady action (about 1.0m/min.) pressing the carpet into the adhesive behind the iron with a seam roller. Ensure that selvedge does not overlap.
- Slide a seam weight behind the iron to keep the carpet flat as the tape cools. Allow sufficient cooling time before attempting power stretching in both directions.

## CONVENTIONAL LAY

Conventional lay installation is a simple and cheap method of carpet replacement. The installation is easy and fast and the carpet is secured with a 3 pin commercial grade architectural gripper around the entire perimeter of the room and then stretched to establish a permanent tension. Some benefits of this installation type are:

- Sound insulation
- Reduced replacement costs in the future
- Carpet replacement time considerably reduced
- Reduced costs of first installation and replacement by approx. 40% against regular methods
- Old carpet can be used in other locations
- Cut the lengths of carpet in a manner to properly align the pattern and produce a matched seam.
- To ensure a good seam it may be necessary to trim the backing selvedge (not face yarn).
- Prior to cutting, a strip of adhesive approximately 20mm wide should be applied to the back of the carpet and adjacent to the selvedge. This practise should also apply when preparing cross joins.

- To seal the edge it is important to apply a 3.2mm (1/8 inch) continuous bead of seam adhesive to the base of cut edge pile. Care should be adopted not to dislodge or disturb any pile yarn from the cut edge. Apply the seam adhesive, then immediately press the adhesive into the base of the pile with your thumb. Do not attempt to impregnate the adhesive using a rubbing motion! Use Polymer 500 Seam Adhesive (or equal).



### **SEAMING/HOT MELT TAPE/WELDING/HEAT BOND**

For rooms larger than the 3.66m manufactured width of carpet, you have to weld the edges (selvages) of carpet.

## There are two welding methods:

**Heating source:** with iron moved along adhesive tape or with electric wire tape supplied by transformer. For both welding methods to achieve exactly matching without pile damage, carpet edges must be cut with a special knife with long guide clearing the way between pile tufts and following the line marked with a small screwdriver and cutting jute without pile being damaged.

Put adhesive tape under the two carpet pieces so prepared and move an iron along carpet connection line dissolving tape adhesive. Carpet widths must be pressed into the hot adhesive.

**Electric wire tape:** method (not as widely used)

This method is said to be easier because it is not necessary to lift carpet edges to place the iron under the carpet.

Heat is originating from electrically heated wires arranged along the adhesive tape.

### **Tapes:**

**For conventional** “stretch-in” installation, use **hot melt tape**. Use Roberts 50-331, Polymer 125

Commercial Seaming Tape (or equal). Test for adhesive bond. Pre-test for proper heat setting to prevent distorting face fibres, and use a heat shield on the iron.

## **INSTALLATION ON STAIRS**

Carpet life may be reduced by up to 60% on stairways if correct procedures are not followed.

Determine pile lay direction, the treads this should be towards the front stair edge. The seams should never be positioned across the stair nosing, unless protective nosings are to be installed.

Protective nosings should be used to cover the edge of the stair to provide a safe foothold and to protect the stair edge from undue wear and colour definition of the step edge. Stair carpets should always be installed on an underlay.

## UNDERLAYS AND ADHESIVES

Shanhua Carpets recommends that Bridgestone Cushion Pad underlay for conventional lay installations and for dual bond/ double-stick installations, Shanhua Carpets recommend that you use Bridgestone Sensislab.



- Lay commercial underlay's of firm construction in the longest possible lengths and at right angles to the carpet.
- Leave no wrinkles on the surface of the underlay.
- For a direct-stick installation, Adhesive Shall be Roberts 50 Carpet Adhesive or Roberts 80 Solvent Free/Low Odour Formula Carpet Adhesive or Roberts 90 Double Bond Carpet Adhesive or Roberts 95 Extra Tack Carpet Adhesive for bonding carpet direct to the sub floor.
- The adhesive should be applied using a 3.2mm x 3.2mm "V" - shaped, notched trowel.
- For a conventional lay installation, Spread Roberts 679 Carpet Latex Adhesive to the subfloor for approx 100mm either side of the pad underlay seams and approx 100mm wide down the middle of each width of pad underlay using a roller or brush to apply with the carpet gripper fixed around the perimeters of the carpet area in accordance with Roberts published instructions.
- For double-stick installation the underlay must be fully glued to the floor with Roberts 80. This should be applied using a "V" shaped, notched trowel with a minimum notch size of 1.6mm x 1.6mm.
- Securing the carpet to the underlays, use Polymer 227 or 228 adhesive (or equal) and this applied using a 3.2mm x 3.2mm "V" shaped notched trowel.

- Use a sufficient number of installers to spread the adhesive in the recommended open time.
- Continually check the trowel to maintain notch size. Incorrect application or incorrect open time may cause lack of adhesion.
- A 100 percent transfer of adhesive into the carpet backing must be obtained, as well as full coverage of the substrate.

Before using any substitute, it is important to check compatibility of underlay, carpet and adhesives with the adhesive manufacturer.



## CONVENTIONAL AXMINSTER CARPET PATTERN REPEATS

In conventional Axminster, there are two basic types of pattern matching used: self-match and drop match. The distance along the length of the carpet between two identical parts of the design is called the, “pattern repeat”.

**Self-match:** (also referred to as **straight match** or **set match**) is a pattern which compliments itself directly across the carpet width from selvedge edge to selvedge edge.

**Half drop match:** is a design in which the complimentary part of the pattern, matches itself diagonally (up or down), across the carpeting width from selvage edge to selvage edge.

## POWER STRETCHING

In the conventional “stretch-in “installation methods, carpets must be **power stretched** in both the length and width directions. In the case of the latter method of laying this must be stretched in both directions before locating over perimeter gripper pins.

- Use a Robert’s Senior Stretcher #10-222 or its equal. Ensure stretcher pins are correctly adjusted to the carpet quality.
- Trim carpet, ideally the following day, or late as possible, at all perimeters and openings.
- Firmly and neatly tuck the edges into the Ensure that the gap between the base strips of gripper is not greater than 60% of the total thickness of the carpet being installed.
- Do not attempt to stretch more than 11metres (36.08 ft) in any direction.
- Use string lines to line up pattern in the lengths and widths.
- Seam seal or heat bond joins.



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