

## EMEA Commercial Broadloom Carpet Installation (Except Ecworx Broadloom)

---

### I. GENERAL INFORMATION

---

For best results review the following guidelines prior to installation. Shaw Contract will not be responsible for improper installation and failure to follow these guidelines may result in a limited warranty coverage.

Always inspect the carpet before it is cut into or installed. Should a visible manufacturing defect be observed, please report the issue to your sales representative or Shaw Contract EMEA office. If such a defect is installed, Shaw Contract is not liable for the installation.

These installation procedures are intended to assist in the indoor installation of Shaw broadloom carpets within most project environments. See BS 5325 Installation of Textile Floor Coverings for specific questions regarding installation guidance not covered within this document or refer to Shaw Contract EMEA tel: +44 (0) 20 7961 4120. Any variance from these procedures will become the sole responsibility of the installer.

### II. SUBFLOOR INFORMATION

---

All subfloors must be clean, flat, dry and structurally sound. The correct preparation of the subfloor is a major part of a successful installation. Subfloor must be within a surface deviation of no greater than 5 mm under a 2 metre straight edge (Surface Regularity 2 (SR2) – BS 5325 / BS 8203 / BS 8204).

#### A. WOOD SUBFLOORS

- Do not install material over wood subfloors that lay directly on concrete or over dimensional lumber or plywood used over concrete.
- Do not apply polyfilm or visqueen over wooden subfloors.
- Basements and crawl spaces must be permanently dry. Where necessary, local regulations prevail.
- All other subfloors – Plywood, OSB, particleboard, chipboard, wafer board, etc. must be structurally sound and be installed following their manufacturer's recommendations. Local building codes, national standards and manufacturer's recommendations may only establish minimum requirements of the flooring system and may not provide adequate rigidity and support for proper installation and performance. Plywood should be of a suitable flooring grade, be at least 6 mm thick and conform to all relevant country applicable regulations and standards.

The responsibility of determining if an existing flooring finish is suitable to be installed over rests solely with the installer/flooring contractor on site. If any doubts exist in relation to the suitability of such a base, serious considerations should be given to its full removal and its subsequent repair.

## B. CONCRETE & SAND CEMENT SUBFLOORS

- Floors shall be smooth, permanently dry, clean, and free all foreign material such as dust, wax, solvents, paint, grease, oils, and old adhesive residue. The surface must be hard and dense, and free from any substance deemed liable to impede adhesion.
- Cementitious based substrates should have a country applicable moisture vapor content that is deemed dry enough to lay broadloom carpet floor finishes upon. The 'British Standard 8203' requires surface hygrometer readings to have reached equilibrium and be below 75% Relative Humidity (RH). The 'ASTM F1869' states a maximum moisture level per the CaCl test method of 8 lbs. per 1000 ft<sup>2</sup> in a 24-hour period.
- Do not install over cementitious bases with a history of high moisture or hydrostatic conditions. Excessive moisture in the subfloor could promote mold, mildew, and other moisture related issues like the trapping of moisture emissions under the flooring, which may contribute to an unhealthy indoor environment. Shaw Industries does not warrant nor is responsible for damage to floor covering due to moisture related issues.
- pH level of concrete should be between 7-10.
- Concrete floors must be sealed if dusting or powdering exists.
- The final responsibility for determining if the concrete is dry enough for installation of the flooring lies with the floor covering installer.

**NOTE: IT MAY NOT BE THE FLOOR COVERING INSTALLER'S RESPONSIBILITY TO CONDUCT THESE TESTS. IT IS, HOWEVER, THE FLOOR COVERING INSTALLER'S RESPONSIBILITY TO MAKE SURE THESE TESTS HAVE BEEN CONDUCTED, AND THAT THE RESULTS ARE ACCEPTABLE PRIOR TO INSTALLING THE FLOOR COVERING. WHEN MOISTURE TESTS ARE CONDUCTED, IT INDICATES THE CONDITIONS ONLY AT THE TIME OF THE TEST.**

## C. LIGHTWEIGHT CONCRETE & ANHYDRITE (GYPSUM) BASED SCREEDS

All recommendations and guarantees as to the suitability and performance of lightweight concrete and anhydrite (gypsum) based screeds under floor finishes are the responsibility of the supplier / manufacturer. The installer of the system may be required to be authorized or certified by the manufacturer. Correct on-site mixing ratios and properly functioning pumping equipment are critical. To ensure proper mixture, slump testing is recommended.

- Surface must be permanently dry, clean, smooth, free of all dust, and structurally sound.
- As with all bases, Relative Humidity (RH) moisture tests should be conducted prior to undertaking any flooring works. Materials should have a country applicable moisture vapor content that are deemed dry enough to lay broadloom carpet floor finishes upon. The 'British Standard 8203' requires surface hygrometer readings to have reached equilibrium and be below 75% Relative Humidity (RH). The 'ASTM F1869' states a maximum moisture level per CaCl test method of 8 lbs. per 1000 ft<sup>2</sup> in a 24-hour period.

Bond testing to determine compatibility of adhesive to the substrate is advised. Primer can be utilized to promote adhesion.

## D. RADIANT UNDERFLOOR HEATING: WET / HYDRONIC ONLY

In most instance wet or Hydronic underfloor heating systems are installed below sand cement / Anhydrite screeds that have been laid to a depth somewhere between 50 to 75 mm thickness.

It is imperative that the underfloor heating system has been previously commissioned and found to be fully functioning correctly prior to any part of the carpet tile floor coverings package being installed upon the base's surface. The underfloor heating system must be switched off for at least 48 hours prior to commencement of works and must remain off for a further 48 hours after the installation has been completed. It is also important to note that whilst the underfloor heating system has been decommissioned, an alternative heating source should be provided to ensure that the area of installation is kept at a constant temperature of between 18 °C and 27 °C.

After this 48-hour period, the underfloor heating system can be gradually recommissioned in accordance within standard industry recognized rules. Once operational, it is important to note that the heating system must not exceed the industry agreed maximum operating temperature of 27 °C at the underside of the floorcovering (the adhesive line).

Failure to follow the aforementioned guidelines can result in floor finishes and their associated systems being irreversibly damaged.

**Note:** Never attempt to mechanically fix carpet grippers and transition strips to bases that contain underfloor heating systems. Use a suitable hotmelt or cartridge applied adhesive to attach all elements.

## E. EXISTING FLOOR COVERINGS

- Broadloom carpets can in most instances be installed over most existing hard-surface type floor coverings, provided that the existing material is fully adhered, is clean, flat, dry, structurally sound and free of deflection or material that could have an adverse effect on the installation. Existing sheet vinyl floors should not be cushioned and not exceed more than one layer in thickness.
- Installation is NOT allowed over any type of carpet.
- Do NOT install over wood floors that are adhered to concrete.

**\*Note:** Carpets that require fully bonding should NOT be installed over existing floor finishes unless they are deemed suitable bases on which to install.

Solvent residue left in and on the subfloor may have a negative effect upon newly installed floor finishes and their subsidiary underlying systems. Never use solvents or citrus adhesive removers to remove old adhesive residues.

## F. RAISED ACCESS PANEL SUBFLOORS

- Raised access panels must be stable, level, flat, free and clean of existing adhesives.
- Where / if necessary, repair or replace any loose or unstable panels.
- Lippage (variation of height) between panels must not exceed 0.75 mm
- Gaps between panels must not exceed 1 mm.
- There should be no deflection of the individual panels – Concave less than 0.75 mm.
- The surface of the system must be flat and level within a surface deviation of no greater than 5 mm under a 2.0 metre straight edge.
- Should access to the underside of the raised access base be a requirement, allow for framed inspection type hatches.
- Use an appropriate installation method to install the material up on such substrates.
- It is important to note that the joints of raised access bases can sometimes be physically viewed grinning back through the entire thickness of ~~resilient~~ floor finishes. Such disparity is not considered to be a product defect.

**\*NOTE:** Should any doubt exist concerning the suitability of the raised access base, such surfaces can be covered with a 6 mm thick flooring grade plywood. Self-tapping screws, ring shank nails or divergent staples can be used to fix the boards. Should there be slight undulations or differences in height observed in the plywood sheets, a thin coat of a suitable flexible flooring / board grade feathering underlayment can be applied to the plywood's facade prior to installing the floor finishes up on its surface.

## III. INSTALLATION

---

Tools: Tape Measure, Chalk Line, Hammer, Utility Knives, Carpet Stretcher, Power Stretcher and Deadman, Mini Stretcher, Carpet Bolster, Carpet Seam Roller, Adhesive Trowel 2 mm x 6 mm or 'V' notched trowel, Broom or Vacuum and if necessary, tools for subfloor repair.

### ADHESIVE:

- Use a multi-purpose adhesive such as Shaw 1000 or Shaw 1200.
- For antimicrobial protection, use Shaw 1036

Should the base be dusty or overly porous, use Shaw 9050 surface primer.

Recommended Adhesives are available from F. Ball and Co, Mapei, Uzin, Bostik, Thomsit, Tremco, Eurocol, Ardex and Schonox or comparable adhesive manufactures. Always follow adhesive manufactures application instructions.

Install broadloom carpets using conventional techniques. Construction 'type' expansion joints should not be overlaid with any part of a Shaw Contract system. The material should be stopped either side of the joint and an expansion type cover strip should be incorporated into the installation.

## POSITIONING THE MATERIAL:

Dry lay the entire area to be carpeted. Prior to cutting any textured, graphic product, implement roll sequencing. This will minimize the normal variations encountered when pattern matching and any bow, skew or pattern elongation between the rolls. Sequence numbers are provided on the bill of lading and invoice; they are located after the dye lot number. If this information is not available, the date and time is backstamped (in military time) on the carpet to assist in sequencing.

## CUTTING AND SEAMING:

Trim the seam edges with tools and techniques best suited for carpet. Trim edges far enough into the material, normally about 8-10 rows, to maintain the structural integrity of the carpet. The cutting technique for this backing system is to row cut both edges. (Exception – Unitary-backed products are cut using the row cut/trace cut method.) Broadloom products containing a white marker yarn on one side of the salvage approximately 2.5 cm's from the salvage's edge should be removed first. The opposite side should then be cut in, in order to achieve a proper pattern match. Correctly align the products pattern, close any gaps and overlaid areas with a knee kicker, power stretcher or mini stretcher. Stay nails or the use of a 'deadman' can be used to temporarily hold the material in place.

**\*Note:** A "deadman" is constructed by nailing carpet gripper completely on one side of a 38 mm X 286 mm X 122 cm (2"x12"x 4') long plank of wood.

Patterned carpets must be cut by the row cut/row cut method and dry laid to ensure pattern match, also check for side match and any visual defects. Use a screwdriver or row runner to separate rows of yarn and cut with a cushion back or loop pile cutter. Once completed, peel back the carpet to expose the base below. Apply the adhesive as per manufacturers recommendations and allow it to partially cure and become tacky. Carefully place the first drop of carpet into the adhesive and apply seam sealer to its edge. Once the seam sealer has been applied, gradually place the second width of carpet into adhesive. Ensure that the seam is firmly butted up and that the pattern is correctly aligned and matched at its centre. Use a power stretcher, mini stretcher, stay nails or 'deadman' to obtain proper match. Remove stay nails after the adhesive sets up approximately 12 to 24 hours after installation.

Cross seams can be made in the same manner as side seams if the rows can be run across their width. Place a straight edge on the products face and run a cushion back cutter along its edge with the blade retracted as this will achieve a better seam quality. This will preserve more yarn by pushing it out of the way prior to it being finally cut. This cut edge is then used as a guide to trace cut the second side of the seam.

**\*Note:** All commercial broadloom products require the use of a latex seam sealer such as Shaw 4000 or F Ball Styccobond F30. Seam sealer must be applied to all cut edges that have been trimmed for seaming and must cover the thickness of both the primary and secondary backing without contaminating the face yarn.

# ShawContract®

Such products are commonly used to prevent edge ravel, tuft loss, and delamination of the secondary backing.

## GENERAL COMMENTS:

- To ensure any air entrapment has been fully removed and adhesive transfer has correctly occurred, roll the installation in both directions with a 75 to 100 lb. flooring grade roller.
- Should the carpet be required to be installed in conjunction with a stuck down underlay, please ensure that it is of a suitable grade and that it is installed using an appropriate adhesive and installation method.

## TRANSITIONS STRIPS:

Where carpets meet other floor coverings or where they finish at door thresholds, the materials edges must be adequately protected with an appropriate transition strip that covers the carpet edge by at least 12 mm ( $\frac{1}{2}$ " ).

## POST INSTALLATION CARE AND PROTECTION:

- Use plywood boards to protect the carpet when heavy objects are to be moved over the floor coverings surface.
- To prevent excessive wear to the face of the carpet, we recommend that protective mats be placed under all chairs that incorporate casters wheels.
- When additional construction activity is to take place, a non-staining floor protection must be positioned over the carpets surface to protect it. Do not use plastic sheeting as it will trap moisture.

## BOW, SKEW, and PATTERN ELONGATION

**\*Question:** How do you install a patterned carpet if it has bow, skew, or pattern elongation problems but are still within the set tolerances of 3.81 cm ( $\frac{1}{2}$ " ) for bow in 3.66 m (12'), 3.81 cm ( $\frac{1}{2}$ " ) for skew in 3.66 m (12'), and 3.81 cm ( $\frac{1}{2}$ " ) for pattern elongation in 3.66 m (12')?

**\*Answer:** First, dry lay all the carpet according to roll or pattern sequence. The sequence number on the roll tag determines installation sequence if a pattern sequence is not provided. Dry stretch the carpet to minimize alignment difficulties.

For bow or skew, select the most prominent width wall, cut the carpet exactly on pattern across the width, then position the carpet along the wall. If cut and positioned correctly, either the bowed or skewed edge(s) will be running up the wall.

Fold the carpet back and apply SHAW 1000 or SHAW 1200 adhesive or similar approved adhesive to the base.

# ShawContract®

Apply the adhesive as per manufacturers recommendations and allow it to partially cure and become tacky. Carefully place the carpet into the adhesive.

Using the mini stretcher, pull the skewed or bowed edge down off the wall. Align the pattern along the wall. This will form a bubble that will need to be moved to the opposite end of the seam. A bowed carpet will form a bubble on both edges, a skew will bubble only on one side. Align the pattern as the bubble is moved down the seam. It may be necessary to over stretch the carpet pattern with the mini stretcher and allow it to slide back to achieve proper alignment. Use a power stretcher and “deadman” to properly align the pattern along the opposite wall. If necessary, stay nails could be used to hold the pattern in place.

Once the adhesive has set, remove the nails.

For pattern elongation, start at the centre of the drop and match the pattern at the seam. Then, working both ways from the centre out toward the opposite walls, use the mini stretcher or power stretcher to stretch and align the pattern working towards each wall.

For further information visit the following website: [Bow Skew Pattern Elongation Information](#)

**\*NOTE:** Should the aforementioned guidance leave any unanswered questions or require more clarity, please call Shaw Contract EMEA tel: +44 (0) 20 7961 4120.