

---

## Installing Flat Woven Carpet Styles

Bentley Prince Street manufactures a variety of flat woven carpet styles that offer a minimalist European aesthetic. As a result, installation techniques vary from those required for tufted carpet. Most of all, the mechanic should be pre-qualified as skilled in the installation of woven carpet to assure that adequate attention is devoted to the essential differences between installing tufted and woven carpets. Flat woven styles are offered in two backing options, High Performance with a standard woven scrim or with Prestige Plus attached urethane cushion. Flat woven styles currently include:

- Bare Earth
- Base Metal
- Clodagh's Natural State
- Domestic Alchemy\*
- Natural State
- Pure Element

These important basic differences include:

- **Limited Stretch** – woven carpets, including all styles listed here, yield very little stretch; even with a power stretcher. This means all cuts must be exceptionally accurate to provide the best seaming possible.
- **High Performance Backing** – unlike tufted carpets, some flat woven carpet styles must be either trace cut or double cut with a Gundlach 295 Unicutter. The Gundlach Unicutter will provide superior seaming on flat woven carpet styles. A cushion back top cutter may also be used but is more prone to deflection that can affect seam appearance. Do not use a razor knife to make seams with any flat woven style.
- **Attached Cushion** – flat woven styles with Prestige Plus attached urethane cushion require a trace cut technique with a Gundlach 295 Unicutter. The first side seam should be cut along a straight edge from the face. The second selvage should then be overlapped and trace cut. Do not attempt to double-cut carpet styles with attached cushion. A

## Installing Flat Woven Carpet Styles

cushion back top cutter may also be used, but special care must be taken to avoid deflection that can create gaps or an irregular cut.

- **Direct Glue** – flat woven styles are designed for direct glue installation with only Bentley Prince Street Healthbond 7700. Double glue is not a recommended installation method for flat woven carpets.
- \* **Domestic Alchemy** – this flat woven style varies from other flat woven styles because it has a distinctive 13/64-inch stripe pattern that must be matched. For this reason, the pattern must be followed closely from the face with a cushion back top cutter on both selvages to achieve a suitable match.

**CAUTION:** Improper pin-plate adjustment on knee kickers, power stretchers, crab-type stretchers, or similar installation tools can cause permanent damage to Base Metal and Bare Earth. Use only the finer, more closely spaced pins (also known as a cotton head). Make certain the pin depth adjustment is suitable by first practicing on a scrap of Base Metal or Bare Earth.

### Sub-floor Preparation

The thin profile of flat woven styles will be unable to mask sub-floor imperfections. A consistently smooth and carefully prepared sub-floor will be necessary to provide a consistently smooth installation that is free from pits or bumps that can telegraph up from the sub-floor only to be magnified in the face of the carpet in certain lighting conditions. Old adhesives should either be removed or trowel ridges scrapped flat.

In addition to the specific requirements outlined here for the proper installation of Bentley Prince Street carpet, the basics in the Carpet and Rug Institute's most recent Installation Standard must be followed for product-related warranties to remain in effect. Bentley Prince Street's Healthbond 7700 has been specially formulated for use with flat woven styles and should be used at a rate of about 10-12 square yards per gallon. Bentley Prince Street will not be responsible for problems arising from the use of a different adhesive.

## Installing Flat Woven Carpet Styles

### Site Conditions

Carpet and adhesive should be conditioned on site at a temperature of no less than 60 degrees Fahrenheit and humidity of no more than 65 percent. Conditions should be maintained before, during and after installation. New concrete must be cured between 90-to-120 days. Slab should also be checked for moisture and alkalinity. Concrete floors, even with adequate cure time, can demonstrate an unacceptable moisture or chemical pH condition by allowing excessive amounts of moisture to pass through. This is known as the moisture emission rate, and can be a problem even on suspended concrete floors.

### Moisture/Alkalinity

Concrete subfloors, whether on ground level or the top floor of a high rise, continue to release some level of moisture vapor throughout the life of the building. Moisture vapor emission and excessive alkalinity can work to destroy adhesive and cause installation failure months or years after installation. Bentley Prince Street's carpet products can be installed when relative humidity of the concrete subfloor is properly tested and found to have a relative humidity of 80 percent or less.

Concrete subfloor should have a chemical pH between 7 and 9.

If relative humidity exceeds 80 percent or if the chemical pH exceeds 9 or is less than 7, please contact Bentley Prince Street for further direction on remediation prior to beginning installation. Failure to do so could void warranty coverage. Determining whether the level of moisture vapor emission is suitable for installation of floor covering should be done by using:

### ASTM Standard F2170

This standard details the proper procedure for determining vapor emission with a relative humidity test probe inserted into the concrete subfloor. Please note that Section 09 of ASTM F2170 requires the probe to be inserted to a depth that is 40 percent of the slab's total thickness. Currently, some probes on the market are incapable of achieving the proper depth for accurate moisture measurement. Until other manufacturers have adjusted to

## Installing Flat Woven Carpet Styles

accommodate the test standard, the known acceptable probes currently on the market include the Wagner, Viasla and Engeius brand probes.

### Alkalinity

All concrete floors, old or new, should be tested for alkalinity by using an alkalinity test kit, a pH Test Probe or pH Test Meter. The slab should have an alkalinity level ranging from 7.0 to 9.0 to be suitable for installation

Chemical pH test strips should be capable of measuring a range of 0-14. The area to be tested must be enclosed and acclimated as described previously as requirements for proper testing and subsequent installation of floor covering.

All adhesives, coatings, finishes, dirt, curing compounds, sealant, sweeping compounds, and other substances must be removed from the area to be tested. Non-chemical methods, such as abrasive cleaning or bead blasting may be used on existing slabs to achieve an appropriate state for testing. Any cleaning should take place a minimum of 48 hours before testing. Avoid solvents, chemical cleaners, or citrus-based products.

Check the concrete pH by performing the following:

- Abrade the concrete surface by scratching into the clean slab a minimum of 1/32" but no more than 1/8"
- Apply a small amount (approximately 1" in diameter) of de-ionized or distilled water
- Allow the de-ionized/distilled water to stand for 60 seconds
- Dip the 0-14 pH test strip into the puddle and remove immediately when strip is saturated
- Compare with the kit's pH chart to determine the pH
- At least one pH test should be performed for every 1,000 square feet of space

The concrete subfloor should have an alkalinity level ranging from 7.0 to 9.0 to be suitable for installation. If the pH level is outside this range, STOP the installation and call the Bentley Prince Street Help Desk at 800.423.4709.

### Floor Prep

## Installing Flat Woven Carpet Styles

All sub-floors must be smooth and level, free of dirt, wax and old adhesives. Replace or patch old vinyl tiles, strip all waxes, and fill in grout lines of ceramic floors if applicable. Sand or scrape ridges of old adhesives. Old cutback adhesives should be removed and then the residue should be flashed over with a flashing compound. Cracks or depressions should be filled with a premium grade latex patching compound. Do not use water-mixed under layments.

Once the carpet has been checked and all the necessary site preparations have been completed, layout according to the seaming diagram and proceed with careful attention to dye lot placement.

### Dry Lay First

Follow industry accepted methods for a glue down installation as outlined in most recent edition of the Carpet and Rug Institute's Installation Standard 104. All carpet should be laid out, squared with the dominant walls, rough cut to fit, and side seams trimmed before any glue is spread.

### Adhesive

Use Bentley Prince Street Healthbond 7700, a high solids acrylic adhesive specially formulated for flat woven carpets. Bentley Prince Street will not be responsible for installation problems or failures that result from the use of other adhesives.

### Seaming

These tools are needed for making suitable seams in Bare Earth and Base Metal:

- 72-75" Steel Straight Edge
- Heavy duty utility blade or Carpet Knife
- Gundlach 295 Unicutter, Cushion Back Cutter (Ex. Roberts 10-146, Crain 301/302, Orcon 13136, National #575)
- Double Cutter (i.e. Roberts 10-909 or National #575)

When joining several lengths together, run all drops in the same arrow direction. Overlap the sides 1-to-3 inches, keeping alignment the same the entire length.

---

## Installing Flat Woven Carpet Styles

### Cutting Side Seams

Cutting side seams on flat woven carpet is very different from cutting side seams on tufted carpet. Please take extreme care to follow the instructions for each specific backing type. If there are problems cutting or installing flat woven carpet properly, please **stop** the installation and contact Bentley Prince Street immediately.

### Seam Sealer

Apply Healthbond 3000 or Healthbond One seam sealer. Apply seam sealer along both cut edges using a conventional buttering technique and then allow too dry. Do not apply seam sealer after adhesive application or when one breadth of flat weave has been dropped into adhesive. Unlike most direct glue application, applying seam sealer on a flat weave style during the seaming process can cause adhesive and/or seam sealer to bleed through to the surface where it can be difficult if not impossible to remove. Instead, apply seam sealer to all cut edges using the buttering technique. Allow the seam sealer to dry thoroughly before proceeding to make the seam in the adhesive. Applying seam sealer is an essential step and must be applied to all cut carpet edges that will ultimately be exposed to rolling or foot traffic after installation. Bentley Prince Street will not be responsible of issues arising from a failure to properly apply seam sealer to all cut edges installed where those edges will be exposed to traffic of any level or intensity.

### Adhesive

Full spread Healthbond 7700 Adhesive with a 1/8" x 1/8" x 1/16" V-notch trowel. Adhesive must penetrate up into the backing receiving 100% transfer, including the recesses of the secondary. Bentley Prince Street will not be responsible of issues resulting from the use of any other adhesive with flat woven carpet styles.

### Seaming

After folding in one side of the seam, remove any excess adhesive along the seam line with one swipe of the trowel running directly beneath the seam. No additional seam sealer is required. Fold in the other half of the seam being careful not to squeeze the adhesive up onto the surface of the carpet.

---

## Installing Flat Woven Carpet Styles

Healthbond 4200 Solvent Free Cleaner can be used to remove any adhesive that may have gotten onto the surface. Remove any adhesive before it dries!

Using a knee kicker, stretcher and Mini Crab Stretcher (Roberts 10-117) aligned ribbed patterns running in the width (Weft) of the carpet construction. Prior to use of knee kicker, stretcher and mini-crab stretcher first adjust and test for proper pin plate height on a scrape piece of carpet. Incorrect pin plate adjustment on these tools can cause permanent damage to the face of the carpet. Using Napping Shears remove any sprouted and loose fibers from the seam.

Keep foot traffic and rolling traffic off seams until seam sealer has cured. Masonite or plywood should be used to protect the carpet during move in.

### Cross Seams

Lay-out drops overlapping cross seam 1 to 3 inches aligning ribbed construction across both widths of carpet. Mark location of seam on both pieces of carpet with a small cut. Location of cut should always be made closest and along side the smallest rib, or weft cable. Make sure to not cross over ribs in order to provide a more acceptable seam.

Use a Gundlach 295 Unicutter, cushion back cutter, or National 575 to follow row and provide the best cut possible. Cut both cross seams following the row previously marked out. Use seam sealer to butter both end seam edges and let dry in the same manner used for length seams. An additional 1/16" bead of seam sealer should also be applied on the floor for all cross seams.

### Align Ribs in Cross Seam

Using a knee kicker, stretcher and Mini Crab Stretcher (Roberts 10-117) aligned ribbed patterns running in the width (Weft) of the carpet construction. Prior to use of knee kicker, stretcher and mini-crab stretcher first adjust and test for proper pin plate height on a scrap piece of carpet. Incorrect pin plate adjustment on these tools can cause permanent damage to the face of the carpet.

### Important Advice

## *Installing Flat Woven Carpet Styles*

*These installation procedures are recommendations designed for the experienced and competent installer. Strict adherence to these procedures will result in a quality installation under most conditions. Any situation that could alter the installation procedure or jeopardize the possibility of a satisfactory installation, such as identification of defective material or unusual installation conditions, creates a responsibility for the installer to STOP the installation immediately and call Bentley Prince Street Customer Care at 800.423.4709. Bentley Prince Street will not be responsible for substandard installation or for an installer's decision to proceed with an installation that is not resulting in a satisfactory or acceptable finished project.*

### *Contact us*

*Bentley Prince Street  
14641 East Don Julian Road  
City of Industry, CA 91746  
800.423.4709  
[www.bentleyprincestreet.com](http://www.bentleyprincestreet.com)*