BROADLOOM CARPET
GENERAL INSTALLATION INSTRUCTIONS

WARNING

Before cutting this material stop and check the following:

- Confirm if the style matches your order.
- Verify that the color is the correct one.
- Check if the pattern is accurate.
- Ensure the size is correct.
- Validate the accuracy of dye lots.
- Examine for any visual defects.

To report any concerns with the carpet – It is recommended to reach out to the Beaulieu Canada retailer initially for any carpet-related concerns before contacting claimsdept@beaulieucanada.ca via email.
No claim will be considered for improper installation, use of improper adhesives, trowel size or failure to seal seams.

Read all instructions carefully before beginning any installation.
Improper installation of carpet may void consumer's warranties. The instructions contained within are in addition to the minimum guidelines set forth in the Carpet and Rug Institute "CRI Carpet Installation Standard 2015".

Installer Qualifications: Installation shall be accomplished by experienced, qualified installers using the proper tools and techniques and in accordance with the **CRI Carpet Installation Standard 2015** and Beaulieu's *Guidelines for Installation of Pattern Carpet*.

ACCLIMATION

It is recommended that carpet and installation materials be allowed to acclimate in the installation area for a minimum of 24 hours at a temperature of 65-95ºF (18-35ºC). Carpet must be adequately protected from soil, dust, moisture and other contaminants.

SITE PREPARATION

Temperature and humidity: An HVAC system must be operational for installation to begin. The environment in which carpet is to be installed must be controlled with the temperature between 65°F and 95°F (18°C and 35°C) and a maximum relative humidity of 65%. The subfloor temperature should not be less than 65°F (18°C). These conditions must be maintained for at least 48 hours before and 72 hours after completion. Any big changes in temperature could cause difficulties with the installation.

Testing of Concrete Subfloors: It is the owner or general contractor's responsibility to provide to the flooring contractor a written report on moisture and alkalinity content of the slab to ensure suitability for installation. If the concrete slab exceeds the permissible amount of moisture and alkalinity the owner or general contractor is responsible for making the necessary correction prior to carpet installation. These tests should be performed and documented not less than once every 1,000 square feet.

Refer to **CRI Carpet Installation Standard 2015** for more details.

Alkalinity Testing: The recommended range for pH is between 5 and 9. A rating greater than 9 indicates an alkalinity problem and will require corrective measures as directed by the adhesive manufacturer.

Moisture Testing: Both Beaulieu Canada and the CRI recommend a calcium chloride moisture test kit be used to determine the moisture emission rate of concrete slabs. The maximum permissible emission rate for moisture barrier backings and carpet tiles is 5 pounds. Ratings between 3 and 5 pounds are considered acceptable for products with a porous backing. Subfloors exceeding these moisture ratings will require corrective measures.

SITE CONDITIONS

Floor Preparation: Each subfloor shall be inspected to determine the special care required to make it a suitable foundation for carpet. All floors must be clean, dry, free of dust, grease, wax, curing agents, excessive alkalinity, paint, old adhesive and any foreign substance that would prohibit proper bonding of the carpet to the subfloor.

New Concrete: New concrete shall be cured, clean and dry. It shall be free of curing or parting agents that interfere with the bonding of the adhesive. If the concrete has a powdery surface, a sealer compatible with the adhesive must be used to provide a suitable surface for direct glue installations.

Wood: For proper installation, wood substrates must meet the following requirements: they should be structurally sound, flat, dry, and securely anchored. The substrates, including plywood, hardwood, particleboard, oriented strand board, or other suitable materials, must be of flooring grade (APA approved). Any irregularities, imperfections, and joints must be adequately patched and prepared before installation.

Resilient: Installing carpet over resilient flooring may be acceptable as long as the resilient flooring is securely bonded to the substrate and all waxes, sealers, floor finishes and other foreign materials have been removed. It is not recommended to install over floating, perimeter bonded or cushion-backed sheet goods.

Terrazzo, Ceramic, Marble, Slate and Other Nonporous Surfaces: To ensure proper adhesion, it is necessary to remove surface finishes and abrade flooring surfaces. Grout lines should be filled and made flush with the flooring material surface. For some surfaces like ceramic or others, using a primer might be necessary to ensure proper adhesion. In the case of slate and brick surfaces, which can be rough and uneven, a self-leveler or smoothing agent may be needed before installing the carpet. Additionally, it's important to pay attention to the requirements specified by the adhesive manufacturer when adhering carpet to these surfaces.

SEAM AND EDGE PREPARATION

Row Cutting Seams: Beaulieu Canada requires all seams to be row cut with exception to printed patterns. Be sure to row cut edges on pattern, trimming off a sufficient amount of rows from each side. This procedure creates a good cutting surface and removes any potential loose edges. No tufted pattern carpet will be matchable unless this row-cutting requirement is strictly observed. The steps required in row cutting involve:

1. 1.Reviewing the tufted pattern for the correct place to trim edges.
2. 2.Use an awl or flat blade screwdriver to open the tufted row, to create a cutting guide.
3. 3.Use a loop pile or cushion back cutter to trim along the row.
4. 4.Be sure to replace cutting blades as often as needed.
5. Seal each cut edge with a latex sealant or hot-melt diffuser to repair edge breakage and promote long-term product performance.

Printed Patterns: The only exception to row cutting seams is when installing a printed pattern. Because printed patterns are created on the carpet after tufting, the patterns will not necessarily follow the rows of tufts. Use a metal straight edge as a guide to cut from pattern to pattern. Do not attempt to cut long distances between two patterns by popping a chalk line. Slight variations in the carpet might cause you to cut too far into some patterns that extend beyond your straight line. At the same time, you would not be cutting far enough into patterns that do not meet the line.

Seam Sealing Glue Down Seams: All seams must be properly sealed using a continuous bead of seam adhesive large enough to cover the primary backing, yarn bundles and secondary backing. Our latex backings can be seam sealed with either a solvent or non-solvent based seam adhesive. Our polyurethane backings must be sealed with a non-solvent seam adhesive.

Seam Sealing Hot Melt Seams: A good quality latex seam adhesive (Mapei Ultrabond ECO2285 – or - Roberts 8015 - or - Parabond 4263) must be used should be applied to secure both cut edges and allowed to dry completely prior to beginning the hot melt seaming process.

Transition edges: When finishing carpet against other flooring materials a transition strip or molding should be used. All cut edges should be sealed before being placed into or covered by the transition strip. Carpet transitions are required to prevent severe edge damage caused by hard surface cleaners and equipment as well as concentrated traffic.

Regardless of the seaming method used, a **proper seam** should have cleanly trimmed edges securely sealed with edge/seam sealer, tightly abutted edges without gaps or overlaps, and maintain a reasonable pattern match where applicable. It's important to note that a proper seam will not be invisible, but it should meet these specific criteria for a successful installation.

CUSHION RECOMMENDATIONS

When performing a Stretch-In installation proper cushion choice is very important. Cushion, which is too soft or too thick will cause excessive flexing of the carpet and result in open seams, delamination and re-stretching problems. Beaulieu Canada's cushion requirements is as follows: density of 12 lbs./ft.3, or greater with a maximum thickness of 3/8" for commercial applications and 6 lbs/ft.3 or greater with a maximum thickness of 3/8" for residential applications.

DOUBLE-GLUE INSTALLATIONS

Beaulieu Canada recommends using an attached polyurethane backing system versus the double-glue installation method. Attached polyurethane backings decrease installation time, adhesive requirements and create less opportunity for installation failure. However, if a double glue installation is absolutely necessary there are **no** exceptions to the following requirements:

1. The proper pad must be selected (see cushion requirements above).
2. A premium permanent adhesive must be used between both pad to floor and carpet to pad.
3. Use a 1/8" x 1/8" x 1/8" V notch trowel in adhering the "Pad to Floor" and a 1/8" x 1/16" x 1/8" U notch trowel when adhering the "Carpet to Pad" re-notching as necessary.
4. Carpet seams must be at right angles to cushion seams or offset at least 6" to either side.
5. Apply latex seam sealer to both edges and let dry completely before hot melting seams.
6. Use a silicone free, low profile, double glue hotmelt tape.
7. Roll carpet with a maximum 30-50 lb roller.
8. Absolutely no traffic for a minimum 48 hours.

Any deviation from the instructions above could result in wrinkles, bubbles and separation of pad from floor or carpet from pad.

INSTALLING PATTERNED CARPET

Plan To Power Stretch: Beaulieu Canada requires the use of a "Senior Power Stretcher" for all stretch-in installations and for stretching to match patterns in direct glue and double glue installations. A two-headed power stretcher, a Mini Carpet Stretcher as well as a "DEADMAN" works great in matching patterns.

Knee kickers should only be used to position carpet, never to install, achieve final stretch or pattern match.

Pattern Matching: All textile products due to their nature and flexibility have some degree of inherent distortion. Thus, when introducing a pattern into the construction, additional installation steps are required to assure a suitable pattern match. It is a fact that pattern carpet installations take longer to install versus non-patterned installations. This is due to the additional steps required to assure an acceptable pattern match such as dry laying carpet, row cutting on pattern, positioning carpet with a knee kick, use of dry lines to check and create a reference point for pattern straightness, power stretching patterns into alignment and possibly stay nailing to hold carpet in place while adhesive sets.

It is the responsibility of the installation contractor to understand the project scope, which includes the product selected for installation and properly addressing any additional installation steps in the original labor quote. Beaulieu Canada will not be responsible for any additional labour incurred on pattern installations that should have been addressed in the original labour quote.

Beaulieu Canada does not guarantee exact pattern match of our products. This is due to the fact that carpet is a textile and cannot be manufactured to exact measurements. We do state that our patterns when within certain parameters can be matched by carefully following the proper pattern matching steps.

Beaulieu Canada manufacturing tolerances for tufted carpets are as follows:

Pattern match, 2 inches in 12 ft. Length

Bow, 1 ½ inch across the 12 ft. Width

Skew, 1 ½ inch across the 12 ft. Width

Edge straightness, +/- 1 inch from a centre line.

Roll Sequencing: Pattern elongation / size variation unlike other inherent characteristics to be discussed, is more gradual and is not detectable unless measured or compared to other patterns during the dry laying phase. This characteristic requires that patterned carpet be sequenced and installed according to its pattern count measurement and not by its roll number.

Again, all pattern products must be dry laid first!

Sequencing by pattern count measurement (largest to smallest) will guarantee that you are always stretching the smaller patterns to the larger ones.

Typically, the installer should be prepared to overcome 1” of pattern elongation in 12 feet on any pattern installation.

However, as mush as 2” of pattern elongation can be corrected in a 12’ length. The goal is to install the longest pattern first, then the next longest, and the next longest and so on. This procedure is critical in that it is impossible to shrink a longer pattern to match a shorter one.

Example: Ten pattern repeats are measured on each roll and the measurement determines sequence.

On defined pattern products, Beaulieu Canada will provide a pattern-sequencing sheet for your convenience in staging your project.

Direct Glue: After roll sequencing is established and carpet is dry laid, glue half of the roll with the longest pattern measurement and half of the roll with the next longest pattern measurement lengthwise. Apply seam sealer and power stretch the roll with the shorter pattern measurement to

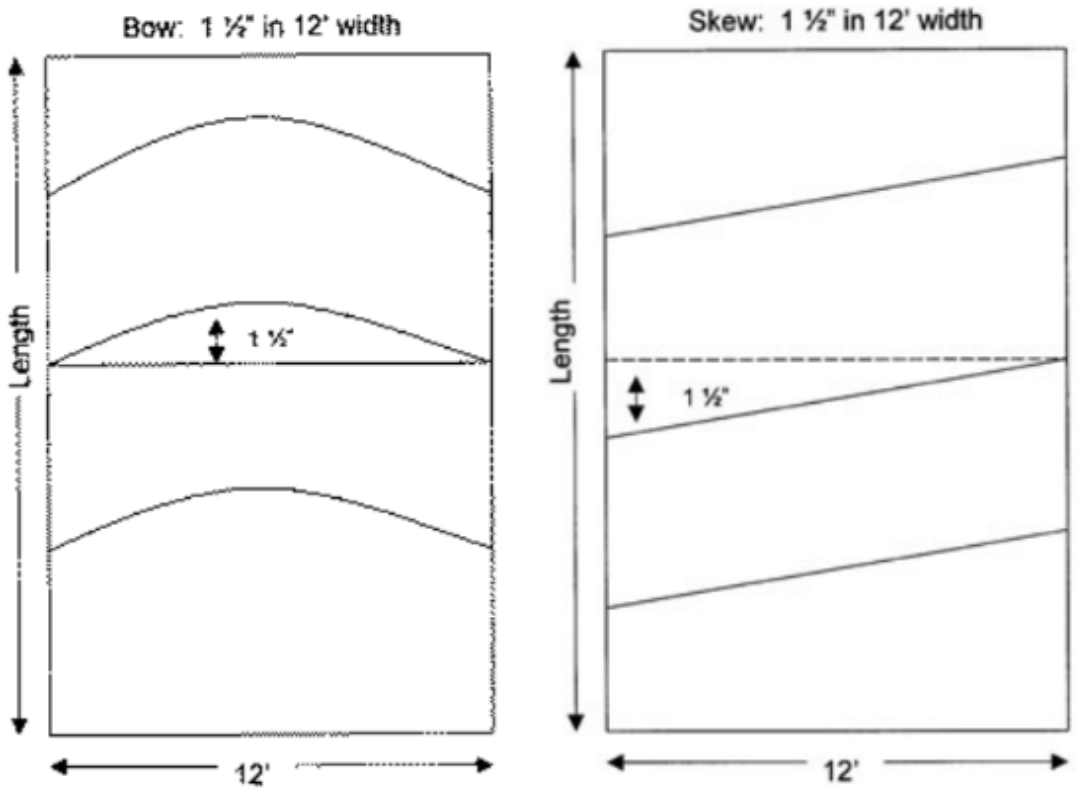
match the longer one by starting in the centre of the seam and stretching towards the ends. Stay nails may be required to secure the carpet as the adhesive sets.

Stretch-In: Establish roll sequencing, dry lay carpet and apply latex seam sealer to both edges. Pre-stretch the sections with shorter pattern measurements to align with longer patterns in order to make hot melt seam. A two-headed power stretcher or "deadman" must be used to achieve this. Once the seam is made, proceed with proper stretch installation (**CRI Carpet Installation Standard 2015,** figure "Stretch Diagram"). The use of architectural or double tackless strip is required to be used throughout a stretch-in installation.

Correction of Pattern Distortion:

In all three instances, the names imply a variation of the pattern in relationship to the straight lines (or in the case of "trueness of edge" what should be straight lines) of the selvages. These pattern distortions cannot be cut out. Instead, they must be stretched square again (as they were when exiting the tufting machines needle bar) in order to assure proper pattern match.

Below are diagrams of the additional inherent characteristics of patterned carpet, followed by the installation steps for each one. Bow, Trueness of Edge & Skew.



Correcting A Bow

Bowing, as indicated in the diagram is when the pattern has gained or lagged in the middle of the roll width. Routinely, installers should be prepared to correct 1" or less of bow. However, up to two inches can be corrected. **Remember**, when cutting end seams or cutting to a wall, you must cut on pattern and work bow from end to end.

Direct Glue: Follow sequencing procedure and row cut selvages on pattern. Cut the end of carpet on pattern, which has the bow touching the wall and edges away. Spread adhesive within six inches of both sides so seams can be made after bow is straightened. Push the corners to the wall and stay nail creating a wrinkle/ bubble in the centre. Work the wrinkle through the glue with a power stretcher and stay nailing when necessary. This will straighten the pattern across the width and make up the shortfall of carpet pattern on the opposite side of the room.

Stretch-In: Sequence rolls accordingly. Make side seams, being sure to match pattern. After side seams are created, cut both ends on pattern.

Stretch the short edges to the wall and align the pattern. Continue to stretch accordingly to align the pattern to all walls.

Correcting A Skew

Again, installers should be prepared to routinely correct up to 1" skew in a 12' foot width, even though as much as 2" inches can be corrected. Most of the same instructions for correcting a bow apply to the correction of a skew (see instructions below).

Direct Glue: Spread adhesive to within 6" of both edges so patterns can be matched at the seam after skew is straightened. Cut end on pattern and push the short edge to the wall. This will create a wrinkle on the longer side. The wrinkle is then pushed through the glue correcting the skew as you work to the other end. Stay nail when necessary, leaving nails in for 24 hours. Finish by applying adhesive and seam sealer to edges and matching pattern.

Stretch-In: Make the seam as prescribed earlier, matching the pattern. At this point, the carpet should be at a slight angle to the wall. Force the short side into the tackless strip, creating a wrinkle on the long side. Attach the long side to the tackless while stretching across the room. This will force the wrinkle diagonally into the short pattern on the opposite side of the room.

Correcting Trueness of Edge

Carpet that has trueness of edge variations takes on the shape of an S. This condition is relatively easy to correct and should not prevent proper pattern matching.

Remember, even in this situation, the seams must be row cut on pattern (follow the S shape) and straightened using the techniques below.

Direct Glue: Snap a chalk line where the first seam is to be made and spread the adhesive for half of the width. Bring the most extended parts of the S to the straight line. Power Stretch the valley portions to the straight line, stay nail and leave for 24 hours. Repeat the above steps on the second half of the width and continue as needed throughout the rest of the project.

Stretch-In: Make hot melt seams as discussed before. As the seam is made, carefully match the pattern. Stretch each side to a straight line against the walls. This will take out the S shape and the seam will flatten.

INSTALLING CARPET ON STAIRS

Carpet Direction: It is recommended that the machine direction of the carpet be installed in length direction of the stairs.

NOTE: Most manufacturers recommend carpet pile direction run down the stairs.

Preparation: It is required that the stair tread, riser and stair nose should be clean, dry and structurally sound. The stair nose return should be rounded ¾ to an inch (19 to 25 mm) to prevent sharp stair edges from cutting carpet and/or cushion, and to provide proper carpet contact for adhesive installations. When the carpet is installed over a separate cushion, extend the cushion over the stair nose.

Stretch-In Installation in Stairs: Tack strip is to be installed on each thread. It is required that pins on the tread point toward the riser. On a waterfall-type stair installation, tack strip is to be installed on risers also. Pins on risers point down the thread. It is required that the gully between strips be slightly less than the double the carpet thickness. Where a turned finish is desired, tack strip and cushion are about 1 1 /2 inches (38 mm) less than the carpet width, to allow for a turn under each side of the stairs. Some stairs require track strip on the sides to maintain the proper tension. When using a cap-and-band or contoured technique, tack strip is not used on riser.

NOTE: When staples are used in upholstering carpet on stairs, take care to separate pile yarns to avoid trapping yarns, resulting in visible distortion. If the edges are exposed, they must be edge sealed. Upholstery work needs to have raw edges exposed. Any seams or joints must be sealed. Carpet seams need to be split in the direction of the balusters/spindles.

Glue-Down Installation: Install carpet on stair treads and risers using recommended adhesive. Stairs without a return (nose) can be installed as one piece over the thread and riser. It is required that on stairs with a return, carpet be cut and installed with the thread and riser being separate pieces.

SUMMARY

The CRI Carpet Installation Standard 2015 is always available on CRI web site at: http://www.carpet-rug.com

- Follow the basic guidelines for direct glue down installations as set forth in the **CRI CARPET INSTALLATION STANDARD CRI 104 or CRI 105** published by the Carpet and Rug Institute. Available online at https://carpet-rug.org/resources/installation-standards/

- Ensure that the substrate is ready for the application of the adhesive, otherwise apply the recommended floor preparation compound to ensure proper bond to the substrate.

- All direct glue down installations using ActionBac (AB) must be performed using either of the following premium adhesives:

Premium Grade Flooring ADHESIVES:

- Mapei Ultrabond Eco185 - or - Roberts 3200 – or - Parabond 4094. for plain carpets.
- Mapei Ultrabond Eco220 - or - Roberts Max 3300 - or - Parabond 4099. for pattern carpets.

Note: Remember that carpet that is moisture proof should never be laid down over wet adhesive, open time must be respected to ensure proper evaporation and eliminate installation failure.

The adhesive manufacturer instructions must be followed for floor preparation. Check for their trowel size and open time recommendations. Beaulieu Canada recommends using a minimum size of 3/32 **X** 3/32 **X** 3/32 V notch trowel. For all rough or porous surfaces, a larger notch size is recommended, use a 1/8 **X 1/8 X** 1/8 V notched trowel.

Prior to final installation, conduct a glue test on a four-foot square surface to determine the best installation system and ensure a strong adhesion to the floor.

Carpet Adhesive Open time:

The open time covers two phases:

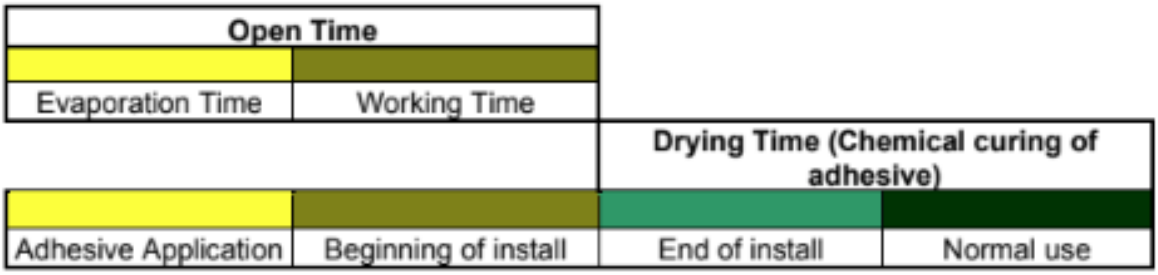
1. The evaporation time: The period of time taken for the water to largely evaporate, allowing the adhesive to become sufficiently cohesive to hold the covering. This evaporation time varies depending on the porosity of the substrate and the local climatic conditions (temperature, humidity).

2. The working time: The period of time when the adhesive is still active enough to allow the covering to bond to the substrate when rolled.

Carpet Adhesive Drying time:

The covering may only be put into normal use and furniture installed after the adhesive has set completely. The setting/ drying time varies between 24 and 48 hours, depending on the type of adhesive used and the ambient humidity and temperature factors specific to the site.

CAUTION: If the covering is put into normal use before the adhesive is completely set, a load-bearing weight on the covering can lead to an irreversible imprint.



SEAMING

Use of seam sealer is MANDATORY! To prevent fraying and ravelling at the seams a 1/8" continuous bead of seam adhesive should be applied to the base of both cut edges where the face yarns enter the backing. Use carpet latex seam adhesives, these products are formulated to anchor the carpet tufts and prevent breaks from occurring where cuts have been made for seams.

Solvent-free seam sealer ADHESIVES:

Mapei Ultrabond ECO2285 – or - Roberts 8015 - or - Parabond 4263 must be used to secure cut edges.

WARNING!

- To overlap and/or double-cut seams is not a recommended installation procedure. Seams should be cut with a Loop Pile or Cushion Back Cutter as recommended by Beaulieu Canada.

- Open the row with a row separator prior to using a row cutter to follow the row, thus cutting the carpet in exactly the same place between two tufting rows. This cutting method eliminates fuzzy edges caused by cut loops along the edges and intermittent colour doubling on multicoloured graphic carpet.

- Using a row separator and cutting between the same manufacturing row all along the cut edge will also minimize many other situations where the seams will show as a demarcation in the installation instead of an unobtrusive line.

Lack of adhesion has many causes and installation failure soon follow. Beware of low-quality adhesives, in your selection of trowels do not cut on the notch size recommendation, ensure that the adhesive evaporation time is respected considering such issues like flooring condition/preparation, temperature/humidity parameters and also ventilation conditions. If adhesive does not have a 100 % transfer and display legs (strings) when pulled back, the installation at that time should be stopped and corrective measures should be taken.

Please visit our website at beaulieucanada.com for the most up-to-date version of this document as it may have been revised and updated since this printed version.

Warranty Guide as well as Care and Maintenance instructions can also be found on our website at beaulieucanada.com, or you may contact your retailer.

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