

# Direct Glue- Down Installations

Prime Flors

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As the first step, please refer to the site conditions, storage and handling manual.

# direct glue-down installations

## **VENTILATION**

Installers should be aware that whenever possible and environmental conditions permit, carpet should be allowed to ventilate with the induction of fresh air. Avoid recirculation of indoor air; exhaust to the outside. During installation, maintain fresh-air ventilation by using fans, by operating the building's ventilation fan system, and by opening windows and doors when conditions permit. After installation, continue to fresh-air ventilate for 48 to 72 hours at normal room temperatures by operating the ventilation fan system at full capacity and by opening windows and doors, if possible. Most emissions will reduce significantly within 48 hours. Any carpet and adhesive odors, if noticeable at all, usually dissipate within seven days.

This handbook cannot possibly address all situations encountered by the commercial installer. If you have any questions, please contact Prime Flors at 905-604-7692.

## **CARPET INSTALLATION OPTIONS**

All Prime Flors products can be installed direct glue method. The selected installation method should be based on the intended end use with regard to expectations for comfort, performance and durability. This is an informed decision made by the end-user with assistance from the dealer-installation entity.

## **A. Preparation for Adhesive Carpet Installations**

### **INTRODUCTION**

There are six types of floors generally encountered by the commercial installer. These include: below grade concrete, on grade concrete, suspended concrete, suspended wood, terrazzo and metal. Each of these floor types must be properly prepared to receive both the adhesive and the carpet. Accurate floor preparation is mandatory for a successful adhesive carpet installation. Though some carpet secondary backing systems may be more forgiving than

others as to the condition required of the sub-floor, every adhered carpet requires a clean, sound substrate.

This section is structured into the following subtopics:

- Concrete Floor Preparation
- Moisture and pH test
- Priming of Concrete and Wood Floors
- Wood Floor Preparation
- Non-Porous Floor Preparation
- Existing Floor Coverings
- Existing Adhesives

## **CONCRETE FLOOR PREPARATION**

*Caution: Concrete sealers and other coatings may impact the carpet floor adhesive bond to the substrate, producing a failure of the installation. The warranties, compatibility with the carpet floor adhesive and performance guarantees are the responsibility of the sealer manufacturer and not the carpet manufacturer. When in doubt we recommend bond testing a 3' x 3' area.*

Other surface coatings such as curing compounds, hardeners, sealers and parting compounds are widely used in new construction and can interfere with the bond of carpet floor adhesives to the slab. Although curing compounds may contain an oil, wax or resin base and are usually eroded by foot traffic prior to carpet installation, care must be taken to ensure that all residue is removed. Hardeners do not usually cause trouble, however excess amounts must be removed. In lift-slab and tilt-up construction, parting compounds (intended to prevent adhesion to permit separation of the slabs) must also be removed. If grinding, bead blasting or sanding is necessary to treat any of the above conditions, run a porosity test to determine if a primer is required. The warranties and performance guarantees are the responsibility of the sealer, primer or underlayment manufacturer and not the carpet manufacturer.

- Surface Texture: All cracks 1/8 inch wide or wider must be filled with a suitable Portland cement-based patch reinforced with polymers. The floor surface must be a sound, dry, clean, smooth and even plane. Floors must also

be free of dust, depressions, protrusions, all existing adhesive, curing agents, parting compounds, oil, grease, paint, sweeping compound residue, and any other contaminant that may prevent the required adhesion of the carpet system backing to the floor.

Mechanical scraping with an Easy Scrape block attachment or a 3M Scotch mesh disc driven by a 175 rpm floor machine makes short work of construction related contaminants that must be removed. These include existing adhesives, paint and varnish over spray, joint compound, dried mud, etc. CAUTION: Do not sand or use a floor machine and disc on any product containing asbestos.

- Density: Adhesive carpet installation over concrete requires a minimum concrete dry density of ninety (90) pounds per cubic foot. Although lightweight concrete (concrete mixed with perlite or vermiculite) may be primed or skim coated to provide a sufficient slab surface density to prevent adhesive absorption into the floor, priming or skim coating will not prevent fractures in the slab surface. Lightweight concrete surfaces will also be a problem when the carpet is removed. A significant amount of the slab surface may remain attached to the carpet back, which has been installed via direct glue-down.

## **TESTING CONCRETE SUBSTRATES**

- Porosity Testing: To check the porosity of a concrete surface, pour a small quantity of water in several test areas. On a proper, dense surface, the water will bead, not absorb. Should the water be absorbed into the floor, the floor is not dense enough. This situation can cause failure of the installation. The same is true in the case of dusty concrete and newly sanded wood floors. When these conditions are encountered, the floor should be primed with a barrier coat.
- Moisture Testing: A moisture test is a requirement for any slab. All on or below grade slabs, regardless of the age, should be tested. Moisture testing must be performed with a minimum slab temperature of 65°F. This is a necessary requirement, since water movement is retarded at lower temperatures and test results will be inaccurate. To test for moisture, use the following moisture test methods, independent agent or testing facility.

Concrete Moisture sealer may be applied to concrete floors that test higher than the moisture emission limits stated above. Prime Flors recommends XL Encore DriSeal for emissions up to 85% RH, 8-pounds moisture emission per 1,000 SF per 24 hours or pH of 11. (Available from [www.xlbrands.com](http://www.xlbrands.com)).

**Testing Concrete Substrates-** Before direct glue-down, double glue-down and some stretch-in (non-porous cushion or carpet) installations, the owner or general contractor, or their designated testing agent, is required to submit to the flooring contractor a written report on the summary of testing results completed regarding the appropriate testing of the concrete substrates for moisture emissions.

Note: It is recommended that qualified independent testing agencies be used for determining moisture vapor emissions and alkalinity in the floor surface. Testing by an independent specialist to determine installation suitability is a prudent and necessary safeguard for general contractors, owners, architects, flooring product providers and installation contractors. As a minimum, testing agencies or individuals are required to demonstrate verifiable experience in concrete moisture testing or be certified by a recognized organization.

Due to the number of available carpet backing types and other variances to be addressed in a successful installation, the testing agencies or individuals are to contact the carpet and adhesive manufacturer for specific guidelines relative to the appropriate moisture vapor emission testing protocol(s) to be conducted before the carpet installation. Testing must conform to the appropriate ASTM standard(s).

**Moisture Vapor Emissions Testing-** Moisture vapor emission rate testing (MVER) performed in accordance with ASTM F1869 has been shown to indicate the moisture condition in the upper portion of concrete floor slabs. It may be appropriate to determine the moisture conditions via other methods of moisture testing.

**Relative Humidity Testing-** Use the in situ relative humidity testing method conducted in strict compliance with ASTM Test Method F 2170. Relative humidity testing indicates the moisture condition within a concrete floor and is suitable for use on normal weight and lightweight concrete floor slabs including slabs above or below grade and of various floor types, including cast-in-place (structural) floors, slabs on ground and slabs in steel deck. When testing

cast-in-place structural concrete slabs, include tests directly over thick structural elements such as cast-in-place beams as well as thinner floor web areas. A relative humidity limit of 80% or less is acceptable unless otherwise specified by the carpet manufacturer.

Relative humidity probes can be placed in concrete floors well in advance of scheduled carpet installation. Periodic RH measurements can be used to evaluate the drying progress of a concrete floor. this information can be used for scheduling and making installation decisions. gypsum based screeds and topcoats dry in days or weeks depending on composition and thickness. The in situ relative humidity test is appropriate for these surfaces.

Surface preparation of these screed coats and topcoats is important if the finish to be applied is to be installed using adhesive. Both the adhesive manufacturer and the manufacturer of the screed should be involved when this is the case.

**Testing for Alkalinity-** A pH range of 7-9 is acceptable. Readings outside this range require corrective measures. Perform testing in accordance with ASTM standard Practice F-710; or consult the adhesive and carpet manufacturer for recommended testing and corrective procedures. Industry consensus suggests 3 tests for the first 1,000 square feet and 1 test for each additional 1,000 square feet.

Caution: The results obtained from testing reflect only the condition of the concrete floor at the time of testing. Further, it is highly recommended that the test site or building be at the same temperature and humidity expected during normal use. These conditions are required to be maintained 48 hours prior to and during testing. The installation of a permanent, effective moisture vapor retarder with a minimum thickness of 0.010 inch and a permanency of 0.1 perms, as described in ASTM Specification E 1745, is required under all on-grade or below-grade concrete floors.

## **PRIMING OF CONCRETE OR WOOD FLOORS**

Priming a sub-floor, either concrete or wood, is intended to eliminate, or at least moderate, minor surface dusting. Priming also reinforces the concrete surface, makes adhesive spread easily thus increasing coverage, improves the

adhesive bond and encapsulates.

## **NON-POROUS FLOORS**

Terrazzo and other non-porous floors require special consideration as sub-floors for carpet. With conventionally backed carpets, evaporation of moisture from carpet adhesive will proceed through the carpet.

## **EXISTING FLOOR COVERINGS**

Many resilient floors provide an excellent base for an adhesive carpet system installation if the floors are soundly constructed, securely bonded, free of all finishes, and not cushioned or embossed. Identifying the type construction of the existing resilient floor is critical for insuring successful adhesion. For example, a securely bonded VAT or VCT floor 3/32 inch minimum thickness provides a good adhesive subfloor; yet, a vinyl floor or rubber floor may not. If it is necessary to adhere to quarry tile, or other tile with recessed grout lines, the floor must be skim coated with a fortified Portland cement underlayment to bring the grout lines flush and level. Follow the underlayment manufacturer's instructions regarding application, thickness, and priming requirements.

## **EXISTING ADHESIVES**

It is strongly recommended that all existing adhesives be removed. Hand scraping or using an Easy Scrape block attachment with a 175-rpm floor machine on existing carpet latex floor adhesive is effective for removal or old adhesive trowel ridges. By eliminating trowel ridges and removal of excessive old adhesives, fresh adhesive will spread more evenly and will therefore produce an effective bond for the carpet to the substrate. We recommend installing several 3' x 3' test areas. Test bond to floor after 72 hours. If extraordinary force is required to pull the carpet from the floor, leave the floor and carpet back fully covered with adhesive, the installation can proceed. Do not attempt installation over dissimilar or incompatible adhesives. Portland cement underlayment similar to Ardex SD-L. Ardex, Inc., 800-899-6698 or Dependable Skimcrete, Dependable Floor Underlayments 800-227- 3434 may also be utilized over existing adhesives. Follow manufacturers instructions.

TriSeal One Coat Encapsulator Sealer (available from [www.xlbrands.com](http://www.xlbrands.com)) is an effective high strength acrylic polymer

formulated to isolate cutback or other incompatible adhesive residue. Seal porous, dusty or wood floor that may impede or affect the bond of new floor adhesive over concrete subfloors.

## **LIQUID ADHESIVE REMOVERS**

The use of liquid adhesive removers is not recommended, as any residual left on or in the concrete slab is capable of producing a failure of the new floor adhesive.

## **WOOD FLOOR PREPARATION**

All existing wood surfaces must be free of chemicals, oils, wax, paint, varnish, old adhesives and any other contaminant that may prevent the required adhesion of the carpet backing system to the floor. Additionally, it is strongly recommended that all wood floors be suspended a minimum of eighteen (18) inches, be cross-ventilated, and have an appropriate vapor barrier installed.

Wooden sub-floors bonded directly to, or laid over, sleepers on concrete that directly contact the ground are not an acceptable substrate for any carpet installation. Possible moisture contained in the concrete can cause the wood to swell, buckle, or eventually rot.

A double-layer wood sub-floor suspended over open wood joists (sixteen inches on center or less) and made of ½ inch plywood rated as either APA underlayment INT (interior type), APA underlayment INT (with exterior glue), APA underlayment CC plugged ext. (exterior type), is acceptable as an adhesive subfloor. Single layer tongue and groove with a maximum three (3) inch face should be covered with a ¼ inch APA underlayment grade plywood. Single layer floors not of tongue and groove construction and having more than a three (3) inch face should be covered with a ½ inch APA underlayment grade plywood. An uncupped, double-layer tongue and groove wood floor is a suitable subfloor for adhesive carpet installations.

The warranties and performance guarantees are the responsibility of the plywood or underlayment manufacturer and not the manufacturer of the carpet.

Prime Flors does not recommend the use of chipboard or particleboard as carpet underlayment material.

## PRIOR TO INSTALLATION

Before actual installation begins, check the following list to ensure compliance with every detail:

*CAUTION: Carpet performs best when the major traffic runs the carpet length. It is not recommended that the carpet length be run the corridor width, producing a seam every 12 feet across the corridor.*

- a. Carpet rolls transported to the job site are free of any wrinkles or creases. **DO NOT BUNDLE!** Bundling will cause creases and wrinkles that may prove difficult to remove during installation. If loose bundling or bending is absolutely necessary to transport the carpet to the installation site, unroll the carpet as soon as it is delivered. If possible, do not bend, fold, or bundle any carpet.
- b. Floors are properly prepared.
- c. Building, carpet and adhesive must be preconditioned for 48 hours prior to installation at a constant temperature and relative humidity between 65° to 95°F and 10% to 65%RH, respectively.
- d. Carpet is laid out according to roll sequence and approved layout specifications.
- e. Shop drawings/plans are prepared for the area to be carpeted.
- f. Plan checked against the available roll lengths and dye lot numbers to keep cross seaming to a minimum. If using more than one dye lot, record on the shop drawing the exact location where the dye lot change will occur to minimize possible shade or texture differences. This transition point must be recorded on the shop drawing.
- g. Seam locations are planned so that no perpendicular seams will occur at doorways or entries. All doorway seams should be centered directly under the door.
- h. Seams should run with the flow of traffic. The only exception occurs when windows allow incoming daylight to highlight seams from the side. In this situation, run the seams into the daylight to reduce the visibility of the seam.
- i. All seams are to be trimmed properly with pattern match consideration and seam sealed.

- j. Pile is running in the same direction. Directional arrows on backing and/or pile yarn sweep on fill pieces.
- k. Correct adhesives on hand and correct trowel notch size determined.
- l. There is enough manpower available to professionally complete the installation.

*NOTE: Prior to beginning a direct glue-down installation, the installer must be familiar with all information contained in the section, "Floor Preparation for Adhesive Carpet Installations".*

Direct glue-down installations can involve carpets with several types of backings.

Regardless of the type carpet backing applied, direct glue-down installations require a clean, sound substrate.

This section is divided into six major topics:

- Preparatory Information for Adhesive Carpet Installations
- Procedures for Installing Action Bac
- Procedures for Stretch-In Patterned carpet
- Pattern Match Policy
- Procedures for Installing Unibak Plus

## **CARPET LAYOUT**

Dry lay entire area prior to adhesive application in order to allow the carpet to become relaxed and conditioned to the room environment. Dry lay carpet in the area a minimum of 24 hours prior to the actual carpet installation.

## **PRIME FLOORS APPROVED ADHESIVE AND MINIMUM TROWEL NOTCH SIZE**

Premium Carpet Adhesive is approved for all direct glue-down installations. The floor adhesive is to be spread uniformly over the subfloor with the correct trowel leaving adhesive ridges of sufficient size to achieve full and complete coverage of the carpet backing. **THIS REQUIREMENT IS NOT OPTIONAL!**

If in doubt about the trowel notch size to use, spread some adhesive onto the floor that is to be covered for a test area. Lay the carpet into the adhesive and roll the carpet with the appropriate roller. Then, pull the carpet off the floor and confirm there is full and complete coverage of the carpet backing while still maintaining complete adhesive floor coverage. If necessary, adjust notch size to achieve the required full and complete coverage of the carpet backing.

## **SEAM PREPARATION**

Seams shall be prepared by trimming off the mill, or factory edge. This cut is to be made far enough in from the carpet edge so that a clean and even seaming edge is achieved, considering pattern match a minimum of one inch must be trimmed off each edge. Cutting tools with razor-type blades, such as cushion-back cutters, should be used for seam preparation. All recommendations for seam preparation and cutting must be followed.

All cut edges must be properly treated with a 1/8 inch bead of Seam Sealer. The sealer must be applied along the cut edge of the carpet at the point where the face yarn meets the primary back. Any excess sealer, which contaminates the carpet face, must be removed immediately using white cotton towel wet with soap and water. It cannot be 100% removed after drying!

## **SEAM TRIMMING**

- Loop Pile Constructions: If the carpet is a straight row, level, or multi-level loop construction, insert a row finder, a screwdriver or the nose end of the cushion-back cutter (with the blades retracted) between tuft rows. Run tool the entire length of the carpet to be seamed, separating the yarn and opening a path for the cutter. Trim into the body of the carpet far enough from the factory edges to obtain full-face weight and good lamination of the backing system. This distance will vary from a minimum of 1 to 2 inches from the edge on straight row constructions to as much as a 3 inch minimum on some graphic constructions. Using the cushion-back cutter, separately trim both seam edges by cutting between the tuft rows. Cut close to the main body to obtain a tight seam by trimming with the blade close to the seam edge.
- Cut Pile Constructions: In order to obtain a uniform pile height on both seam sides, it may be necessary to trim in further on cut piles than on level loop construction. Depending upon pile height, this distance will range from a

minimum of 1 to 2 inches into the body of the carpet.

- Pattern Constructions: These carpets must be trimmed from the face using either a loop pile cutter (Roberts #10-152) or a cushion- back cutter. Trim into the body of the carpet far enough from the factory edges to obtain full face weight and good lamination of the backing system at a point of pattern match.

Because of the shifting mechanism of pattern tufting equipment, there may be a variance of 2" to 6" in width after selvage edges are trimmed. To separate the rows, use a row finder, cushion-back cutter with the blades retracted or a screwdriver with the blade corners rounded off and run the instrument the length of the seam.

## **SEAM CHARACTERISTICS**

Regardless of the installation method, a properly constructed seam:

- Has cleanly trimmed edges properly sealed with Seam Sealer.
- Has tightly abutted edges without gaps.
- Maintains reasonable pattern match where applicable.
- Will not be invisible.

## **PATTERN CARPET**

### **PATTERNED CARPET CONSIDERATIONS**

It is imperative that all parties discuss pattern configuration, the backing system, installation method, bow, skew and possible pattern variation to prevent the possibility of having a very dissatisfied customer.

Subsequent to the specification, the specifier, end user and the carpet installation contractor must all understand the Prime Flors pattern match policy regarding tolerances for bow, skew, trueness of edge and pattern repeat variation.

All parties must agree upon reasonable expectations relative to the pattern alignment, pattern impact on quantities and the labor cost to install patterned carpet. The larger the pattern, the easier to match and install.

### **SEQUENCE PATTERN CARPET BY PATTERN SIZE**

Patterned carpet must be sequenced by the pattern size length keeping dye lots separate not by manufacturing roll numbers; however do not mix dye lots.

Patterned carpet is a textile product, and as such, it may not perfectly match at the seams. The flooring contractor must be familiar with the carpet's styling to be installed prior to delivering the carpet to the job site.

Also, the technician must be qualified and have proper equipment (power stretchers, mini-stretchers, etc.).

Prime Flors patterned carpet must be installed working from the longest pattern in the dye lot to the shortest pattern: The goal is to minimize the effort associated with bringing the pattern into register at seams. This is facilitated through sequencing of the rolls for installing the longest pattern in the dye lot first, then the next longest pattern, etc.

Continue in this manner until the installation is complete. Remember it is very difficult, if not impossible, to shrink / compress carpet patterns; however carpet patterns can be stretched into register.

- a. Dry lay the entire area before gluing any carpet; this process allows for documentation of panel sizes and fine-tuning of pattern sequencing.
- b. As a minimum check, measure the pattern repeat at the open end of each roll. All measurements should be to the nearest ¼". Prime Flors' maximum tolerance for pattern repeat variation is set at 2" in every 15 linear feet.
- c. When possible, rolls 60' and longer should be checked at open end, roll center, and core end for pattern length, then sequenced accordingly.

*Prime Flors does NOT GUARANTEE AN EXACT OR PERFECT MATCH ON ANY PATTERNED QUALITIES. REASONABLE PATTERN MATCH MAY BE ATTAINED BY USING TRAINED CERTIFIED CRAFTSMEN OR INSTALL CERTIFIED PROFESSIONALS [www.installfloors.org](http://www.installfloors.org) AND BY FOLLOWING OUR PATTERNED INSTALLATION PROCEDURES.*

## PATTERNS

Select the match point far enough in from the factory edges to obtain full face weight and good lamination of the backing system. Tufted patterns are to be row cut so that when the carpet panels are seamed together, the pattern will be completed (i.e., a diamond pattern should be seam trimmed point to point, thus splitting the diamond into halves). Run a row finder or a cushion-back cutter with the blades retracted down the length of the selected tuft row. This procedure will open the face yarn and clear a path for easier seam trimming. By staying between the selected tuft rows with the cushion-back or loop pile cutter, there will be no deviation from the selected match point as long as the selected tuft row is not crossed. Keep the blade of the seam-trimming tool close to the seam side. Do not trace cut, or double cut pattern carpet having a published pattern repeat.

1. Determine seam locations and cut sufficient lengths of carpet to cover the installation area. Be sure to allow for pattern match, plus enough extra carpet along each wall (approximately 2 to 3 inches) for trimming.
2. Sequence the cuts, count 30 patterns and compare the measurements to determine the best pattern sequence.
3. Align the breadths so the best possible match occurs. Align the rolls working from the largest pattern repeats down to the shortest patterns. Virtually the only way to achieve proper pattern match is to dry lay an entire area before proceeding.
4. Align the pattern along the wall and balance the pattern within the room so the best effect is obtained. For instance, if  $\frac{1}{3}$  of the pattern is showing on one wall, have  $\frac{1}{3}$  showing on the opposite wall.
5. Strike a chalk line on the floor the total length of the seam nearest the center of the area to be covered. Ensure that this seam line is square with the area.
6. Align the trimmed seam edges to the chalk line. Match the pattern at the seam center.
7. Should the pattern not match along the length of the seam, it will be necessary to power stretch the short pattern seam edge into register with the long pattern seam side.

8. Turn back the seam side with the long pattern. Apply Carpet Adhesive 4 feet to 6 feet wide the full length of the seam side to the chalk line. Ensure that the trowel will supply enough floor adhesive for the required full and complete transfer onto the carpet back.
9. Following the correct open time, lay this first seam side into the adhesive. Stretch and adjust so that this seam edge is aligned with the chalk line.
10. Ensure that the second seam side is matched at the center of the seam length. Check pattern alignment as far toward each end as the pattern matches. Mark the floor at these points.
11. Turn back the second seam side and apply the floor adhesive 4 feet to 6 feet wide down the length of the seam to the pattern matched marks on the floor.
12. Apply Carpet Seam Sealer to cut edges that are now matched.
13. Drop in and close up the seam in the pattern matched area.
14. Clean any carpet seam sealer from the carpet face yarn immediately with white cotton toweling moistened with soap and water.
15. Tractor seam area, and roll the carpet both directions with the appropriate roller. It may be necessary to stay nail the carpet in place.
16. Roll up the second seam side from both ends to the area of the applied floor adhesive.
17. Apply the floor adhesive 4 feet to 6 feet wide down one end of the rolled up seam length about 10 feet.
18. Apply Carpet Seam Sealer to all cut edges at seams and transitions.
19. Roll the carpet into the adhesive, close the seam and use a power/mini stretcher to align the pattern.
20. Use a "dead man", made of a wooden pallet with a  $\frac{3}{4}$ " piece of plywood nailed to one side of the pallet, completely

covered with “C” tackless strip nailed in with all pins facing the same direction. The pallet being tiered allows for easy positioning of the dead man. The dead man may then be stretched from any angle or location. Only 2 stretcher sections will be needed. Use care when positioning the dead man, lifting it in a slight sweeping motion toward the power stretching direction to avoid pulling out any carpet face yarn.

21. Stay nailing may be required to hold carpet in place until adhesive sets up.

22. Complete the seam makeup working from the seam center towards each end.

23. Power stretch, align, check diagonals and stay nail to complete seam.

## **B. Installation Instructions for Prime Flors' Styles of Action Backed Carpets**

Prior to beginning the installation, ensure that all information presented in Topic A, *Preparatory Information for Adhesive Carpet Installations* has been followed. The following instructions are for the installer who is an experienced and qualified professional.

Patterns: Select the match point far enough in from the factory edges to obtain full face weight and good lamination of the backing system. Tufted patterns are to be row cut so that when the carpet panels are seamed together, the pattern will be complete (i.e., a diamond pattern should be seam trimmed point to point, thus splitting the diamond into halves). Run a row finder or a cushion-back cutter with the blades retracted down the length of the selected tuft row. This procedure will open the face yarn and clear a path for easier seam trimming. By staying between the selected tuft rows with the cushion-back or loop pile cutter, there will be no deviation from the selected match point as long as the selected tuft row is not crossed. Do not trace cut or double cut pattern carpet having a published pattern repeat.

### **TROWEL SIZE:**

The minimum trowel size to be used for the installation of Action Bac is a U notch  $\frac{1}{8}$ "w x  $\frac{1}{8}$ "d x  $\frac{1}{8}$ "s. Floor conditions

may require a trowel with deeper notches.

### **ADHESIVE APPLICATION:**

The floor adhesive shall be spread uniformly over the subfloor with the correct trowel leaving adhesive ridges of sufficient size to achieve full and complete transfer of coverage from the subfloor to the carpet backing.

### **SITE CONDITIONS:**

The floor temperature must be a minimum of 65° F, not to exceed 95° F and the humidity a maximum of 65%. These conditions must be maintained a minimum of 48 hours prior to installation and continually maintained 24 hours a day for at least 72 hours following completion of the installation.

### **HANDLING:**

Use only lift trucks equipped with carpet booms. Bending or folding is not recommended.

### **PREPARATORY INSTALLATION INFORMATION** (Read all instructions below prior to proceeding.)

1. Dry lay the area to be carpeted, checking against the available roll lengths and dye lot numbers to avoid extra cross seaming. Take into consideration all support columns, entrance areas and other obstructions to attain the best carpet layout.
2. Then select a starting point near the center of the area. Strike a white chalk line on the floor to mark the first seam location. Be sure this first seam is parallel to the outer walls.
3. Check the carpet for direction of pile lay, being careful to keep all the carpet pile laying the same direction.
4. Cut two lengths of carpet allowing about 1 to 2 inches for non-patterned styles or a full pattern for patterned styles to run up the walls for future trimming, and position the lengths of carpet side by side along the chalk line with the pile lay of both in the same direction.
5. Perform seam trimming operations as described in *Seam Preparation and Seam Trimming* Information for Adhesive Carpet Installations.

6. Move the first length of carpet up to the starting chalk line and stay nail along its centerline, parallel to the seam. During this procedure, work out any wrinkles allowing the carpet to lie smoothly on the floor. Stay nail at approximately 12 to 18 inch intervals following the centerline of the carpet along its entire length. Make sure the carpet does not shift from the chalk line. Drive the nails into the floor just far enough (approximately  $\frac{1}{8}$  inch) to temporarily hold the carpet in place. Use the strip of carpet that was trimmed from the width as a "marker" and nail staytack through it. In this manner, the stay nails will be clearly visible, and none will be lost in the carpet as the installation proceeds.
7. Now check the yarn alignment of the second cut against that of the first and decide whether the yarn will align properly to produce a tight seam.
8. A compression of  $\frac{1}{16}$  inch is recommended for compression seam set up. Ensure that both lengths of carpet lay perfectly flat and tension-free.
9. Stay nail the second length as in Step 6.
10. Carefully fold back both lengths toward stay nails. Carpet may become torn or ripped if pulled against stay nails.
11. The exposed floor between the folded cut should be swept and vacuumed, if necessary.
12. When installations are on very dry concrete, it is recommended that water be used to damp mop the floor. (Be certain to remove all puddles or excess moisture.) For relatively non-porous surfaces such as epoxy-terrazzo, vinyl or steel, it is important to allow sufficient time for the adhesive to become tacky before applying the carpet.
13. With a U-notched trowel (minimum size of  $\frac{1}{8}$ "w x  $\frac{1}{8}$ "d x  $\frac{1}{8}$ "s), spread the Premium Carpet Adhesive evenly and without interruption using a sweeping semi-circular motion. Apply the adhesive using as many craftsmen as necessary to ensure uniform adhesive open time the length of the seam length. Spread the adhesive in a straight line at the folds so that there are no scalloped edges to spread to when the uncemented portion is turned back. The trowel must be kept clean and periodically renotted as required. The floor adhesive must be spread

uniformly over the subfloor with the correct trowel leaving adhesive ridges of sufficient size to achieve full and complete coverage of the carpet backing.

14. In most installations Premium Carpet Adhesive requires no open time. Conventional adhesives will require sufficient open time to provide green grab (light adhesion to the floor). Do not let the adhesive skin over. Use the tacky wet installation method. Open time will vary depending upon environmental conditions, generally 20 minutes but not to exceed one hour. Lay the folded edge of the first cut into the adhesive. To do this, the installers should position themselves at intervals along the entire length of the fold, grasp the folded edge, lift it up, and walk towards the seam. The installer in the middle of the roll walks ahead thus forming a wedge. A cardboard carpet roll core cut into 2 foot lengths can be used for smoothing the carpet into place.
15. Carefully apply a 1/8" continuous bead of Premium Carpet Seam Sealer to the cut edge at the point where the face yarn meets the primary backing to lock in the tufts and seal the edge of the first cut.
16. Next, grasp the folded edge of the second breadth and place it over the adhesive as in Step #14 with the exception that this flap should be "walked in" evenly rather than using the wedge method. "Walk in" all but 1 foot of the second breadth and fold this amount back again.
17. The installers should now step onto cut #1, face cut #2, and holding thumbs up, grasp the 1 foot fold of cut #2 and place it into the adhesive approximately 1/4 inch from the edge of cut #1. Slide this edge until it tightly abuts the edge of the first roll. The 1/16" overage will help achieve a tight, compressed seam. Do not let the seam peak.
18. Hold the edge in place by kneeling on it and work the excess created by the 1/16" overlap out toward the stay nails. The seam adhesive on the edge of the first length will transfer to the seam edge of the second length to seal the seam and prevent fraying. In case of slight peaks or gaps, a knee kicker or mini-stretcher may be needed for adjusting the carpet slightly to obtain a closed and even seam. Immediately clean up wet Commercialon Premium Carpet Seam Sealer from face yarn with a clean white cotton cloth wet with soap and water. Do not allow sealer

to dry in any area in need of clean up. Brush or roll any looseness and trapped air bubbles away from the seam with a light roller or carpet tractor. This procedure must be complete before the adhesive sets up.

19. Turn the unglued portion of the first length of carpet back toward the seam. Spread adhesive for a 6-foot width along the entire length. Lay the carpet onto the adhesive. Brush or roll out looseness and trapped air toward the wall, i.e., away from seam.
20. Cut the next and continuing lengths of carpet and position each. Repeat the above procedure to complete the installation.
21. While the adhesive is still tacky, the carpet must be pressed down along the wall. As each length is installed, trim and fit at walls and around jogs, pillars, etc., using the Roberts 10-905 wall trimmer and Roberts 10-440 hooked blades. The carpet can now be rolled with a 75-pound roller.
22. If cross seaming is necessary, follow the procedures outlined in the next subtopic entitled *Cross Seaming*.
23. The exposed edges **MUST** always be protected by a suitable edge molding and seam sealed. Resilient moldings can be fastened to the floor by contact cement or a similar material. The metal can be fastened with concrete nails or other appropriate fastening devices.
24. Clean up Premium Carpet Adhesive while still wet using soap and water. Apply with a clean, white cotton cloth using a blotting action. Do not saturate the carpet by pouring water directly onto the carpet's surface.

## **CROSS SEAMING**

When cross seaming is necessary, ensure that the direction of the pile is the same for all pieces and lay each piece into position allowing a minimum of 2 inches overlap with a pattern match at the seam area and 1 – 2 inches for trimming at the wall. Trim all lengthwise edges, and fit the trimmed edges to the trimmed edge of the last full width. Reverse roll both seam sides prior to trimming to establish a downward carpet curl. If the carpet will allow, trim both

seam edges of the cross seam at a pattern match point at a stitch row. Patterned carpet must be matched and seam closed which may require use of a mini-stretcher or knee kicker and stay-nails.

On all seams, length or cross, all edges must be sealed with Premium Carpet Seam Sealer. This step must be followed and is not optional.

**CAUTION:**

- *Carpet should not be subjected to traffic for at least 24 hours after the completion of the installation.*
- *Do not wet clean any direct glue-down carpet until the installation has been completed for thirty (30) days.*
- *Do not cover a direct glue-down installation with a moisture barrier protection such as plastic, as it will cause buckling and possible mildewing by “trapping” moisture in the adhesive. Protect the installation with a nonstaining building paper.*
- *Flooding voids manufacturer’s warranties.*

## **PATTERN CARPET**

### **PATTERNED CARPET CONSIDERATIONS**

It is imperative that all parties discuss pattern configuration, the backing system, installation method, bow, skew, and possible pattern variation to prevent the possibility of having a very dissatisfied customer.

Subsequent to the specification, the specifier, end user and carpet installation contractor must each understand the Prime Flors pattern match policy regarding tolerances for bow, skew, trueness of edge and pattern repeat variation. All parties must agree upon the expectations relative to the pattern alignment, pattern impact on quantities and the labor cost to install the patterned carpet properly. The larger the pattern, the easier to match and install.

### **SEQUENCE PATTERN CARPET BY SIZE**

Patterned carpet requires sequencing by the pattern size keeping dye lots separate, not by manufacturing roll numbers. Patterned carpet is a textile product, and as such, will seldom perfectly match at the seams. The flooring contractor must:

- a. know what product he is installing prior to opening the carpet at the job site.
- b. have the qualified personnel, equipment (power/mini stretchers, etc.)
- c. be training to properly install the specified product to the customer's realistic expectations.

Prime Flors patterned carpet must be installed working from the longest pattern in the dye lot to the shortest pattern; or the goal is to minimize the labor cost in bringing the pattern into register at seams. Install the longest pattern in the dye lot to the next longest pattern – continuing in this manner to the shortest pattern in the dye lot. Compressing of patterns in carpet can be very challenging or impossible.

- a. Dry lay the entire area before gluing any carpet. This process allows for documentation of panel sizes and fine-tuning of pattern sequencing.
- b. As a minimum check, measure the pattern repeat at the open end of each roll. Ideally, all measurements should be to the nearest ¼". If possible rolls 60' and longer should be checked at open end, roll center and core end.

*Prime Flors does NOT GUARANTEE AN EXACT OR PERFECT MATCH ON ANY PATTERNED QUALITIES. REASONABLE PATTERN MATCH MAY BE ATTAINED BY USING TRAINED, CERTIFIED CRAFTSMEN OR INSTALL CERTIFIED PROFESSIONALS [www.installfloors.org](http://www.installfloors.org) AND BY FOLLOWING OUR PATTERNED INSTALLATION PROCEDURES.*

## **C. Direct Glue-Down Procedures**

*Seam Trimming Note: Do not trace cut or double cut seams Prime Flors recommends row cutting all seams.*

### **PATTERNS**

To cut seams, select the match point far enough in from the factory edges to obtain full face weight and good lamination of the backing system. Patterned carpets are to be row cut so that when the carpet panels are seamed together, the pattern will be completed (i.e., a diamond pattern should be seam trimmed point to point, thus splitting the diamond into halves). Run a row finder or a cushion-back cutter with the blades retracted down the length of

the selected tuft row. This procedure will open the face yarn and clear a path for easier seam trimming. By staying between the selected tuft rows with the cushion-back or loop pile cutter, there will be no deviation from the selected match point as long as the selected tuft row is not crossed. Do not trace cut or double cut pattern carpet having a published pattern repeat.

*Note: Manufacturing equipment used to tuft patterned carpets may create visible lines in both the length(pattern lines) and width directions (shift marks). This characteristic will not always be detectable in small samples and is not considered a manufacturing defect. Because of the shifting mechanism of graphics tufting equipment, there may be a variance of 1" to 3" in width after selvage edges are trimmed.*

## **PATTERN ALIGNMENT TIPS FOR DIRECT GLUE-DOWN INSTALLATIONS**

1. Determine seam locations and cut sufficient lengths of carpet to cover the installation area. Be sure to allow for pattern match, plus enough extra carpet along each wall (approximately 3 inches) for trimming.
2. Sequence the cuts, count 30 patterns and compare the measurements to determine the best pattern sequence.
3. Following previously determined pattern size sequence, align the breadths so the best possible match occurs. The rolls should now be closely aligned working from the largest pattern repeats down to the shortest patterns. Virtually the only way to achieve proper pattern match is to dry lay entire area before proceeding.
4. Align the pattern along the wall and balance the pattern within the room so the best effect is obtained.
5. Strike a chalk line on the floor the total length of the seam nearest the center of the area to be covered. Ensure that this seam line is square with the area.
6. Align the trimmed seam edges to the chalk line. Match the pattern at the seams center.
7. Should the pattern not match along the length of the seam, it will be necessary to power stretch the short pattern cut into register with the long pattern seam side.

8. Turn back the seam side with the long pattern. Apply the Premium Carpet Adhesive 4 feet to 6 feet wide the full length of the seam side to the chalk line. Ensure that the trowel will supply enough floor adhesive for the required full and complete coverage of the carpet back. (Too little adhesive will not allow the carpet to be moved into alignment.)
9. Following the correct open time, lay this first seam side into the adhesive. Stretch and adjust so that this seam edge is aligned with the chalk line.
10. Ensure that the second seam side is matched at center of seam length. Check pattern alignment as far toward each end as the pattern matches. Mark the floor at these points.
11. Turn back the second seam side and apply the floor adhesive 4 to 6 feet wide down the length of the seam to the pattern matched marks on the floor.
12. Apply the Premium Carpet Seam Sealer to the cut edge that is now matched.
13. Drop in and close up the seam in the pattern matched area.
14. Clean any carpet seam sealer from the carpet face yarn immediately with white cotton towel moistened with soap and water.
15. Tractor seam area, and roll the carpet both directions with the appropriate roller.
16. Roll up the second seam side from both ends to the area of the applied floor adhesive.
17. Apply the floor adhesive 4 feet to 6 feet wide down one end of the rolled up seam length about 10 feet.
18. Apply the Premium Carpet Seam Sealer to the next seam side the same distance. Roll the carpet into the adhesive, close the seam and use a power /mini stretcher or knee kicker to align the pattern. Use a dead man such as wooden pallet with a ¾" piece of plywood nailed to one side of the pallet completely covered with "C" tackless strip nailed in with all pins facing in the same direction. The pallet being tiered allows for easy positioning

of the dead man. The dead man may be used to stretch from any angle or location. Only 2 stretcher pole sections will be needed. Lifting of the dead man in a slight sweeping motion toward the power stretcher direction will avoid pulling any carpet face yarn.

19. Roll the carpet into the adhesive, close the seam and use a power /mini stretcher or knee kicker to align the pattern.
20. Stay nailing may be required to hold carpet in place until adhesive sets up.
21. Complete the seam makeup working from the seam center towards each end.
22. Power stretch, align, check diagonals and stay nail to complete seam.

## **D. Procedures for Stretching-in Patterned Carpet**

### **PATTERN CARPET CONSIDERATIONS**

Patterned carpet requires sequencing of rolls according to pattern size. (See Pattern Alignment Section).

Achieving a proper patterned carpet installation requires substantial installation experience, additional labor, and thus can be more costly. Patterned carpet may be more easily installed by the direct glue-down method.

It is imperative that all parties discuss pattern configuration, the backing system, installation method, bow, skew and pattern variation to prevent the possibility of having a dissatisfied customer.

Subsequent to the specification, the specifier, end user and the carpet installation contractor must all understand Prime Flors pattern match policy regarding tolerances for bow, skew and pattern repeat variation. All parties must agree upon the expectations relative to the pattern alignment, pattern impact on quantities and the labor cost to install the pattern carpet.

### **PATTERN ALIGNMENT**

1. Determine seam locations and cut sufficient lengths of carpet to cover the installation area. Be sure to allow for

pattern match plus enough carpet along each wall (approximately 3") for trimming.

2. Sequence the cuts, count 30 patterns and compare the measurements to determine the best pattern sequence.
3. Align the breadths so the best possible match occurs. Align the rolls working from the largest pattern repeats lengths down to the shortest. Virtually the only way to achieve proper pattern match is to dry lay the entire areas before proceeding.
4. Align the pattern along the wall and balance the pattern within the room so the best effect is obtained.
5. Should the pattern not match after completing the preceding steps, it will be necessary to power stretch the short pattern to the longer pattern. It is a rule to start at the center of the length of carpet and work the pattern in opposite directions until a match is obtained.
6. After the match is obtained in the center of the length of the two breadths to be joined, stay nail across both widths. Set up the power stretcher so the head of the stretcher will be 2 or 3 feet in front or ahead of the stay nails on the side with the short pattern. Stretch the short pattern to the long pattern until an acceptable match is obtained, and stay nail the carpet on both sides of the seam to hold the match in place. Reset the stretcher by moving it 2 or 3 feet and stretch until the two sides match, then stay nail. The carpet must be stretched at 2 to 3 foot intervals. There are occasions when it will be necessary to swap sides of the seam with the stretcher.
7. Once the patterns are matched and both edges are butted together, butter both edges with Seam Sealer. Take the carpet roll core and place it under the seam. The carpet core will keep the seam edges separated until the Carpet Seam Sealer dries.
8. When the sealer dries, remove the core and seam the carpet together. Allow the seam tape adhesive (hot melt or latex) to cure; then remove the stay nails.
9. The area is now ready to power stretch. (See Power Stretching Procedure.)

## E. Pattern Match Policy

Prime Flors does NOT GUARANTEE AN EXACT PATTERN MATCH ON ANY OF OUR PATTERNED CARPET.

Carpet is a flexible textile material and some degree of shrinkage and/or stretch occurs during the manufacturing process. For this reason, an exact pattern match cannot be assured on patterned carpet. The installation of patterned carpet requires more time, expense and expertise than installing carpet with no pattern. Prime Flors recommends that our carpet be installed by certified installation contractors or INSTALLcertified professionals. A reasonable pattern match should be attainable through following proper installation procedures.

· PATTERN BOW – Maximum bow is 1".

To measure, stretch a string across the width of the carpet from the pattern match point on one side to the corresponding match point on the opposite side. Measure the match point of the greatest separation from the string.

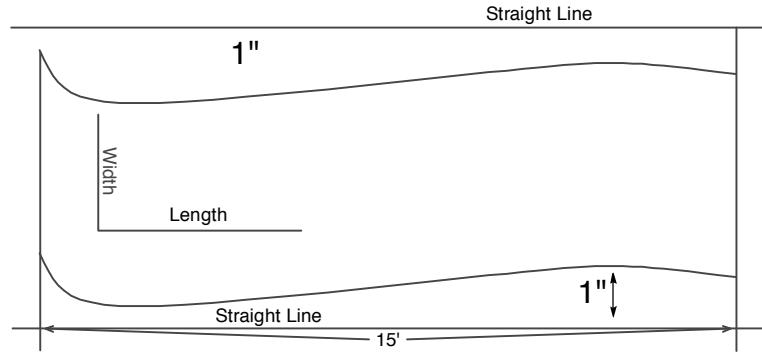
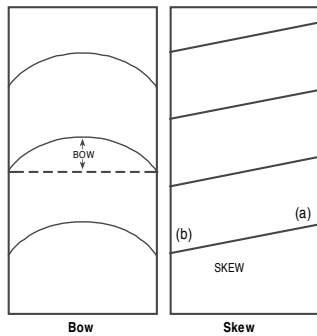
· PATTERN SKEWING – Maximum skew is 1¼".

This is sometimes referred to as being on the bias. Square the carpet on one end. If the pattern on one side (a) is farther from the squared end than the pattern on the opposite side (b), then the pattern is skewed or on a bias.

· PATTERN RUN OFF OR REPEAT VARIATION – Maximum lengthwise repeat variation is 2" in 15' of carpet. Exactly match the sequenced carpet pattern at any point along the seam length. The pattern mis-match should be no more than 2" in 15'. (Linear Feet)

· TRUENESS OF EDGE – Maximum variation is 1" in 15' of length. This is sometimes referred to as serpentine edge.

This condition is most visual along the carpet edges, but will to a lesser degree be obvious into the body of the carpet. Do not attempt to correct trueness of edge by cutting the carpet to a straight line. The carpet must be row cut, on pattern then nudged or stretched back into a straight line using knee kickers or mini-stretchers. STOP — If you have any doubts about installing this carpet to meet the customer's expectations. Call Prime Flors' Maintenance and Installation Department at 905-604-7692.



**CAUTION:**

- Carpet should not be subjected to traffic for at least 24 hours after the completion of the installation.
- Do not wet clean any direct glue-down carpet until the installation has been completed for thirty (30) days.
- Do not cover a direct glue-down installation with a moisture barrier protection such as plastic, as it will cause buckling and possible mildewing by “trapping” moisture in the adhesive. Protect the installation with a nonstaining building paper.
- Flooding voids manufacturer’s warranties.