



INSTALLATION INSTRUCTIONS FOR BROADLOOM CARPET

ACTION BAC™, PERMIAN BAC™ and PERMIAN BAC™ MP _____ (pages 1 – 9)

CAMBRIAN LAMINATE BAC™, ELEMENT CUSHION BAC™,
FIRMA CUSHION BAC™, FUSION BAC, and TERRA CUSHION
BAC™ SYSTEMS _____ (pages 10 - 11)

INSTALLATION INSTRUCTIONS for PATTERNED CARPETS with ACTION BAC™

NOTICE – DEALER and/or INSTALLER must inspect carpet prior to installation. ATLAS WILL NOT BE RESPONSIBLE for visible defects after carpet has been installed. ATLAS WILL NOT BE RESPONSIBLE for pattern match or extra time/labor required to install patterned carpets as stated on all mill specifications pattern books. Any questions call: (323) 724-9000 or (800) 372-6274.

THERE ARE FIVE VERY IMPORTANT PROCEDURES THAT MUST BE FOLLOWED IN HANDLING PATTERNED CARPETS (A – E).

A. JOB SITE AND GENERAL CONDITIONS

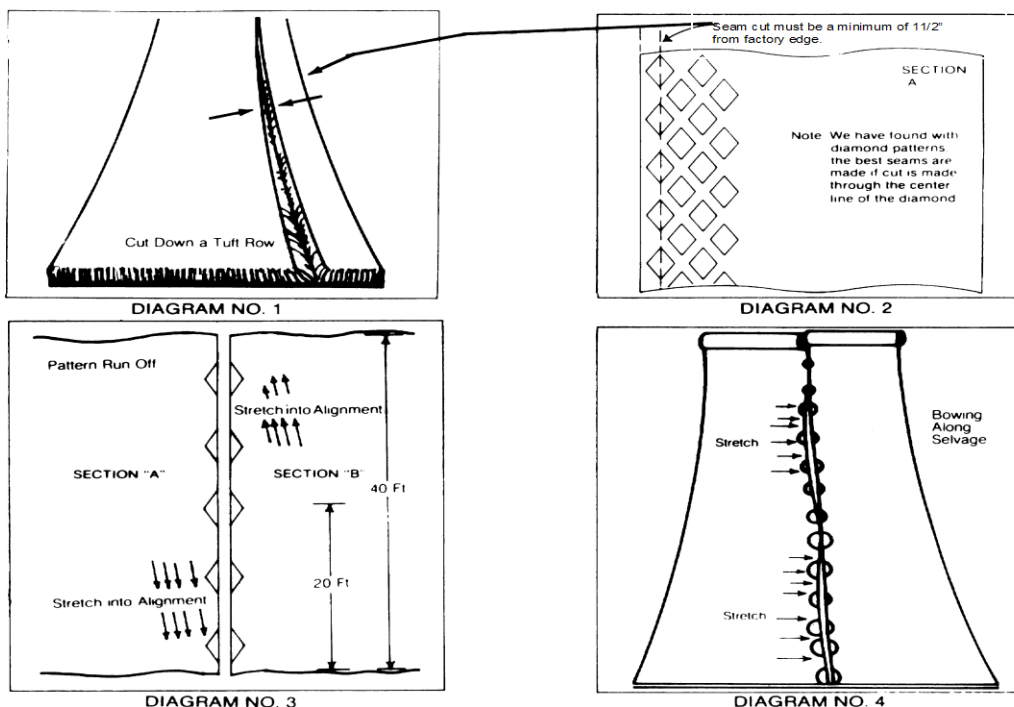
- 1. Storage** – Store carpet and adhesives in a dry area. To avoid product distortion in storage, never stack carpet more than two rolls high or stand rolls on end.
- 2. Acclimation** – Bring all carpet cut sizes and adhesives into space a minimum of 24 hours prior to installation to condition the carpet. Unroll and smooth wrinkles, allowing product to relax. HVAC and lighting systems must be in service. During installation, and 72 hours thereafter, maintain temperature between 65 and 90 degrees F and relative humidity between 20% and 65%.
- 3. Subfloor Conditions** – Subfloor must be dry, level, and free from dirt, grease, oil, paint, sealer, old adhesives, and other residues. Repair or replace loose flooring substrates.
- 4. Patching Concrete Subfloors** – Patch cracks in concrete subfloors greater than 1/8” deep with an approved latex patching compound. Use latex additive to mix patching compound, not water. For larger areas requiring leveling, use a cementitious underlayment mix.
- 5. Concrete Moisture Content** – New concrete subfloors must cure from 90 to 120 days. The moisture emission rate of a concrete floor is expressed in lbs. /1000 square feet/24 hours. Because the test for emission rate requires 72 hours to conduct, proper installation planning is a must. As a general guideline, an emission rate of 3 lbs. or less is acceptable for most carpet. In the range from 3 to 5 lbs., carpet with backings of porous constructions can usually be installed successfully. An emission rate above 5 lbs. is considered unacceptable. To ensure the sub-floor is acceptable for use; moisture test methods ASTM 1869 or ASTM 2170 are REQUIRED before installing carpet. Prior to installing Atlas carpet(s), the adhesive manufacturer should confirm in writing that the site floor conditions meet or exceed their moisture requirements.
- 6. Concrete Alkalinity Content** – Test all concrete, new or old, for excessive alkalinity. A pH range of 5-9 is acceptable. A reading above 9 requires corrective measures. Consult the adhesive manufacturer for recommended corrective procedures.
- 7. On or Below Grade Concrete Subfloors** – On or below grade concrete subfloors must have an appropriate vapor barrier.

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B. CUTTING/TRIMMING OF SELVAGES AND EDGES DO NOT USE FACTORY EDGE FOR SEAMING

Before you get started, all carpet cut sizes should have been conditioned for 24 hours prior to installation.

1. Seam edges must be cut from the face using a loop pile cutter or cushion back cutter such as Roberts 10146 or equivalent. Double cutting, serpentine cutting, and trace cutting are not recommended. **A premium quality seam sealer containing UV enhancers is mandatory on all cut edges of every seam.**
2. In preparing the seam, determine the match points and the pile sweep of the pattern on both sides of the seam, making sure that the same pattern size is used for the match points. In some patterns the match point may be 18-19 inches in from the first match point; therefore one must be careful with the primary match point. The primary match point will be found within $\frac{1}{2}$ " to $\frac{3}{4}$ " inches from the factory edge. If the carpet has the patented Atlas "Easy Trim" feature, the appropriate cut location is in the narrow gap just inside the black yarn tufted about $\frac{3}{4}$ " inside each edge. Using a dull screwdriver or a similar blunt instrument, run down (lengthwise) a tuft row coinciding with the pattern match line. Cut down this prepared line with the cutting tool, tilting the blade away from the side to be used in order to obtain a smooth edge. Perform the same method of cutting on the adjacent section of the carpet to be seamed (Diagram Nos. 1 & 2). Cross seams must be prepared in a similar manner. Because of the difficulty in obtaining good pattern match in cross seams and fill seams, the material should be selected from the same roll.
 - Run seams lengthwise to major area(s).
 - Run major seams parallel to, not across, traffic paths.
 - Plan major seams so that natural or artificial light does not shine directly across them.
 - Avoid seams at major pivot points.
 - Avoid seams which intersect perpendicular to doorways and entrances.





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C. DIRECT GLUE DOWN INSTALLATION ADHESIVES

The following are Atlas approved premium adhesive manufacturers. Adhesives must be applied with a minimum 1/8" x 1/8" x 3/16" U-notched trowel. Specific approved adhesives are shown in parentheses. Atlas will consider approval for specific adhesives upon request.

- a) Advanced Adhesives Technology: 1-800-228-4583 (#275)
- b) Roberts Consolidated: 1-800-423-6545 (#3300, #3900)
- c) Taylor Industries: 1-800-397-4583 (#2055)
- d) W.W. Henry: 1-800-621-8153 (#351)

NOTE: "Fast Grab" adhesive should not be used for installation of patterned carpets.

1. CONCRETE FLOORS

FLOOR PREPARATION:

- All foreign matter, grease, paint, wax, oil, dirt, etc., should be removed.
 - Cracks, holes and depressions should be filled with a latex patching material.
 - Floor surface should be smooth.
 - Suggest concrete floors be sealed for best results.
- A. As with all installation methods (Direct glue-down, Stretch-in, Double Bond system), the use of appropriate tools may include: power stretcher, knee kicker, dead-man, dry (string) line, stay nails, and a mini or crab stretcher.

INSTALLATION PROCEDURES – Direct Glue-Down:

1. Rolls must be checked carefully for any visible defects before cutting. All rolls must be installed in dye-lot sequence.
2. Orienting carpet so that the pile lies in the same manufacturing direction is critical. All rolls are back stamped with arrows denoting the manufacturing direction. Align arrows to point in the same direction.
3. Use the same cutting procedure found under Section B of this procedure.
4. Loose lay each cut before applying any adhesive, checking carefully for pattern alignment, determining which side must be stretched, if necessary, to match the adjacent pattern. When satisfactory, apply adhesive.
5. Lay the "short" side into the adhesive starting in the center of the breadth and working in both directions from the center. Use a knee kicker or power stretcher to position along a chalk line. Stretch and nail the carpet runs as needed to attain a reasonable pattern match along the seam. Being a fabric, a perfect pattern match cannot always be achieved. However, with care and skill a good match can be obtained. A cotton head power stretcher can also be used on more difficult patterns. Allow sufficient time to dry before removing nails. (See Diagram Nos. 3 & 4.)



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6. Avoid air entrapment. Roll with 75 lb. linoleum roller in both length and width direction.
7. Restrict heavy traffic and furniture movement for 24 hours.
8. To prevent edge raveling at transition borders (wherever carpet meets hard surface flooring), transition strips are required in addition to the proper use of seam sealer.
9. **Premium quality seam sealers containing UV enhancers are mandatory on all cut edges (side seams, cross seams, electrical cut-outs, where carpet abuts hard surfaces, etc.). Installers must apply a 1/8" bead of premium quality seam sealer to the base of the yarn on all cut edges, covering the thickness of the primary and secondary backing without contaminating the face yarns. Before completing the seam, apply a second bead of seam sealer to one side and then place that side into the adhesive on the floor. To weld the seam together, abut both edges of the seam on the floor while the seam sealer is still transferrable.**

Specific approved seam sealers are shown in parentheses. Atlas will consider approval for other specific seam sealers upon request.

- a) W.W. Henry 1-800-232-4832 (#248)
- b) Taylor Industries 1-800-397-4583 (#2075)
- c) Roberts Consolidated U.S.A. 1-800-423-6545 (#8502)
- d) Advanced Adhesives Tech. 1-800-228-4583 (#181)

2. DOUBLE-BOND SYSTEM – TRED-MOR™ or MONOBOND PAD (for example)

NOTICE: This is not to be used with PERMIAN and PERMIAN MP backings, as it will void those warranties. It is very important that you select with care the quality of the materials and equipment to install carpet and cushion using the double-bond method. It is also important to follow the specific cushion manufacturer's current instructions before installation begins. Manufacturers will periodically publish revised instructions when improvements in their procedures are found.

ADHESIVES (Refer to foregoing adhesive manufacturers list.)

In general, when adhering carpet to the cushion, too much adhesive is better than not enough. All adhesives have specific open times so follow manufacturer's instructions closely to insure optimum transfer of adhesives from the cushion to the carpet. Pull back a corner of the carpet to check for good adhesive transfer. If necessary, go to a larger towel. Most adhesive manufacturers recommend the use of an 1/8" x 1/8" x 3/16" U-notched trowel. Use light pressure when applying the adhesive to the soft substrate in order to maximize the amount of adhesive applied.

HOT MELT SEAMING TAPE

As with all Atlas carpets, a premium grade seam sealer with a UV enhancer must be used on all cut edges. Seaming tape will help prevent seam separation after wet cleaning and will assist in maintaining a good pattern match during installation.

INSTALLATION INSTRUCTIONS FOR BROADLOOM CARPET

CAUTION: Do not use a silicone treated tape when installing with the “double-stick” method. The treatment will prevent the adhesive from adhering to the back side of the tape, and usage of such will void the Atlas warranty.

3. STAIRS

A. Stairs with Nosing– Carpet should be installed with one piece covering tread and nosing and another piece covering the riser. Measure both left and right sides of each step accordingly.

NOTE: A $\frac{3}{4}$ ” MINIMUM ROUNDED EDGE NOSING IS RECOMMENDED.

B. Stairs without Nosing– Carpet should be installed in a single piece covering both tread and riser. Measure both left and right sides of each step accordingly.

NOTE: When installing on straight stairs, for maximum adhesion use a non-flammable permanent contact adhesive on the nosing, carrying over 2”-3” on the tread and riser. Apply the same adhesive to the corresponding area on the back of the pre-cut carpet.

The Atlas warranty does not cover carpets installed on stairs.

D. PATTERN MATCH TECHNIQUE & INSTALLATION OVER PAD (POWER STRETCHER REQUIRED) Once carpet has been properly cut, the pattern must be prepared for matching. Pattern matching should begin from the center of the seam area. Characteristic bowing, skewing, or pattern runoff are successfully handled in one or more of the following ways:

1. Bring carpet and adhesives into space a minimum of 24 hours prior to installation to condition the carpet.
2. Position seaming tape under carpet and work from center to end of breadth.
3. Power stretcher head should angle about 15 degrees toward the seam along the “short” side.
4. Stretch in increments along the “short” side. (See Diagram Nos. 3 & 4)
5. As each increment is brought into match, prepare the seam in the matched area and stay tack the match in place to avoid slippage during cooling. Proceed in this manner until the entire seam is complete.
6. Use Knee Kicker to help position pattern match as the seaming iron melts tape adhesive.
7. Move to the next seam, leaving the nails in place on the previous seam and repeat the process. After all seams have been made, remove the nails & power stretch the total installation into place, treating it as one large piece of carpet.
8. To prevent edge raveling at transition borders (wherever carpet meets hard surface flooring), transition strips are required.
9. **A premium quality seam sealer containing UV enhancers is mandatory on both edges of every seam. It locks in loose tufts and is important in preventing peaked seams, open seams, and edge ravel.**
Please refer to section C9 for approved seam sealers.

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REPEAT VARIATION

This variation is sometimes referred to as “pattern run-off” and is determined by a direct measurement method as follows.

1. Determine specified length pattern repeat in inches.
2. Divide this number into 144 inches. This usually results in a whole number. Example: if a carpet is specified as having an 18” match, determine the number of repeats in 12 ft. (144 inches) by dividing 144 by 18, which equals 8. Use this number (in this example “8”) and go to step 3.
3. Measure the distance covered by this number of repeats in numerous places through the dye lot. (See Diagram No. 3)
4. Use these numbers to sequence cuts, working from longest repeat (largest number) gradually down to the shortest repeat (smallest number) within the dye lot. Uncorrected pattern variation (width or length) is visible on a job site as seam mismatch.

Width pattern repeat variation can be determined in the same manner. From an installation standpoint, this is important only on end-to-end or “cross” seams.

You must plan your work so that “short patterns” are stretched to match “long patterns”. Experience has shown that most carpets easily stretch 1.5 – 2% with a power stretcher.

SEAM CAREFULLY!

HOT-MELT TAPE SEAMS

While other seaming methods such as hand-sewn seams are acceptable, hot melt tape is the most generally used today. Use any conventional hot-melt tape which has a large bead of adhesive. The 6-inch width tape is preferred in order to minimize seam peaking. All seams should be constructed using a hard, firm surface.

HEAT SHIELD IS REQUIRED

The seaming iron (preferably a grooved iron) should be equipped with a heat shield to avoid the possibility of damaging the backing and pile yarns.

BEAD “CUT EDGES” WITH SEAM SEALER

A premium quality seam sealer containing UV enhancers is mandatory on both edges of every seam. It locks in loose tufts and is important in preventing peaked seams, open seams, and edge ravel. Please refer to section C9 for approved seam sealers.

STRETCHING AND HOOKING PROCEDURE:

While there are various ways to successfully power stretch, here is a 7-step technique that we have found to be successful (See Diagram No. 5):

1. Hook carpet in corner A and power stretch from A to B at a 15-degree angle. Hook carpet in corner B.
2. Power stretch from A to D at a 15-degree angle and hook carpet in corner D.

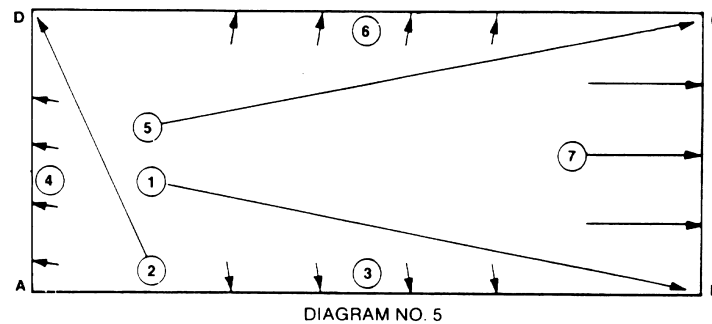
INSTALLATION INSTRUCTIONS FOR BROADLOOM CARPET

3. Knee kick from A to B at a 15-degree angle and hook along wall AB.
4. Knee kick A to D at a 15-degree angle and hook along wall AD.
5. Power stretch from D to C at a 15-degree angle. Hook carpet in corner C.
6. Power stretch from wall AB to wall DC with angular stretches. Position butt plate of stretcher near corner A, hooking carpet to wall DC, then move stretcher no more than two widths of the stretcher head for each successive stretch.

CAUTION: MAKE SURE CARPET IS UNIFORMLY STRETCHED AT LEAST 1-1.5%

To aid you, we suggest you tape or chalk (white chalk) a line across the carpet, then measure the amount of carpet stretched up the wall.

Uniformly power stretch from wall AD to wall BC, moving from AB to DC following same procedure in step 6.



E. AFTER INSTALLATION

1. **Vacuuming** – Before the area is occupied, the entire installation should be vacuumed with an upright, cylindrical brush type vacuum cleaner.
2. **Wiring Cut-Outs** – Normally, electrical and communications floor outlets are connected after the installation. If so, install directly over boxes and surface-mark with tape. Cut-outs can be made later.
3. **Protect Until Occupancy** – Protect carpet from other trades people and heavy traffic until occupancy. If furniture or other equipment is to be rolled over installation, provide plywood or masonite sheets in traffic paths.
4. **Direct Glue-Down Installations** – Never cover the carpet with plastic until the glue has completely dried, usually in 24 hours.

NOTE: Failure to provide adequate protection until occupancy, especially if carpet is installed before the work of all trades people has been completed, may result in damage and deterioration, and may void important warranties extended by the carpet manufacturer.

5. **Minor Repairs** – Minor disfigurements such as cigarette burns often can be invisibly repaired by the circle cutting technique: (1) always check replacement material for exact color match; (2) remove damaged area with a circle cutter; (3) cut a replacement patch of the same diameter; (4) apply a seam adhesive to the perimeter of the patch; (5) align pile or pattern direction and press firmly into place.



INSTALLATION INSTRUCTIONS FOR BROADLOOM CARPET

SUPPLEMENTAL INSTALLATION INSTRUCTIONS FOR PERMIAN and PERMIAN MP, an acrylic based backing system.

Atlas carpet products with PERMIAN and PERMIAN MP, an acrylic based backing system backing are produced under license of The Dow Chemical Company. For assistance contact Atlas Carpet Mills at (800) 372-6274 or The Dow Chemical Company at (800) 847-4212.

No Special Techniques Required – PERMIAN and PERMIAN MP, an acrylic based backing system is readily identifiable by the unique terra-cotta color and by the trademark **PERMIAN** seen prominently on the woven fabric undersurface. Carpets with PERMIAN and PERMIAN MP are installed by conventional commercial broadloom techniques and require no special tools or materials.

Direct Glue-Down Approved Method – Carpets with PERMIAN and PERMIAN MP backing have been expressly developed for installation in indoor premises by the direct glue-down method. Installation by any other method will void PERMIAN and PERMIAN MP warranties.

A. JOB SITE AND GENERAL CONDITIONS

Same as patterned carpet with Action Bac. See page 1.

B. CUTTING/TRIMMING OF SELVAGES AND EDGES

Same as patterned carpet with Action Bac. See page 2.

C. INSTALLATION GUIDELINES

Same as patterned carpet with Action Bac. See section C. "Direct Glue-Down Installation" on page 3.

D. ADHESIVE APPLICATION

Inadequate adhesive spread rate, improper application of adhesive, or use of low-grade adhesive products not intended for commercial usage may void important warranties.

NOTE: Be sure to provide proper ventilation when using carpet adhesives.

1. **Trowel Size** – Use a U-Notched type trowel with minimum 1/8" x 1/8" x 3/16" spacing. A trowel with an insertable blade is recommended to maintain consistent notch size throughout the installation.
2. **Apply Adhesive** – Apply adhesive to subfloor, under both lengths, working in manageable sections. Observe manufacturer's instructions and allow open or flash time to sustain proper transfer.

NOTE: PERMIAN and PERMIAN MP carpet backing requires 100% adhesive transfer. Failure to observe proper flash time will result in incomplete transfer.

3. **Transition Strips** – To prevent edge raveling at transition borders (wherever carpet meets hard surface flooring), transition strips are required.



INSTALLATION INSTRUCTIONS FOR BROADLOOM CARPET

Premium quality seam sealers containing UV enhancers are mandatory on all cut edges (side seams, cross seams, electrical cut-outs, where carpet abuts hard surfaces, etc.). Installers must apply a 1/8" bead of premium quality seam sealer to the base of the yarn on all cut edges, covering the thickness of the primary and secondary backing without contaminating the face yarns. Before completing the seam, apply a second bead of seam sealer to one side and then place that side into the adhesive on the floor. To weld the seam together, abut both edges of the seam on the floor while the seam sealer is still transferrable.

Specific approved seam sealers are shown in parentheses. Atlas will consider approval for other specific seam sealers upon request.

- a. W.W. Henry 1-800-621-8153 (#246)
- b. Taylor Industries 1-800-397-4583 (#2075)
- c. Roberts Consolidated U.S.A. 1-800-423-6545 (#8502)
- d. Advanced Adhesives Tech. 1-800-228-4583 (#181)

E. STAIRS

Same as patterned carpet with Action Bac. See page 5.

F. AFTER INSTALLATION

Same as patterned carpet with Action Bac. See page 7.



INSTALLATION INSTRUCTIONS FOR BROADLOOM CARPET

INSTALLATION INSTRUCTIONS FOR CARPETS WITH CAMBRIAN LAMINATE BAC™, ELEMENT CUSHION BAC™, FIRMA CUSHION BAC™, FUSION BAC™, AND TERRA CUSHION BAC™ SYSTEMS

NOTICE – DEALER and/or INSTALLER must inspect carpet prior to installation. **ATLAS WILL NOT BE RESPONSIBLE for visible defects after carpet has been installed.** ATLAS WILL NOT BE RESPONSIBLE for pattern match or extra time/labor required to install patterned carpets as stated on all mill specifications pattern books. Any questions call: (323) 724-9000 or (800) 372-6274.

Technical Service Department (800) 367-8188 Extensions 2254 and 2255.

A. JOB SITE AND GENERAL CONDITIONS

1. **Acclimation** – Bring all carpet cut sizes and adhesives into space a minimum of 24 hours prior to installation to condition the carpet. Unroll and smooth wrinkles, allowing product to relax. HVAC and lighting systems must be in service. During installation, and 72 hours thereafter, maintain temperature between 65° and 90° F and relative humidity between 20% and 65%.
2. **Concrete Moisture Content** – New concrete subfloors must cure from 90 to 120 days. The moisture emission rate of a concrete floor is expressed in lbs. /1000 square feet/24 hours. Because the test for emission rate requires 72 hours to conduct, proper installation planning is a must. As a general guideline, an emission rate of 3 lbs. or less is acceptable for most carpet. In the range from 3 to 5 lbs., carpet with backings of porous constructions can usually be installed successfully. An emission rate above 5 lbs. is considered unacceptable. To ensure the sub-floor is acceptable for use; one of two moisture test methods (ASTM 1869 or ASTM 2170) is REQUIRED before installing carpet. Also, prior to installing Atlas carpet(s), the adhesive manufacturer should confirm in writing that the site floor conditions meet or exceed their moisture requirements.
3. **Concrete Alkalinity Content** – Test all concrete, new or old, for excessive alkalinity. A pH range of 5-9 is acceptable. A reading above 9 requires corrective measures. Consult the adhesive manufacturer for recommended corrective procedures.

B. PLANNING AND LAYOUT

1. **Dye Lots and Roll Sequence** – Avoid mixing dye lots in the same area. For best pattern match and minimum textural variations, especially on a large installation, always try to install rolls in the numerical sequence (within each dye lot) of production.
2. **Patterned Carpets** – Although perfect pattern match cannot be guaranteed, best pattern match will come from cuts taken from the same carpet roll and/or dye lot. Plan ahead by verifying available roll lengths. Always allow extra carpet to compensate for pattern matching.

C. CUTTING AND SEAMING

NOTE: All Atlas styles with an attached backing require cutting and seaming techniques; which slightly differ from conventional commercial broadloom products. The use of power stretchers, crabs or mini-stretchers, along with stay nailing techniques is critical. The following procedures have been developed to include a wide range of face constructions.



INSTALLATION INSTRUCTIONS FOR BROADLOOM CARPET

Before you get started, all carpet cut sizes should have been conditioned for 24 hours prior to installation.

1. Seam edges must be cut from the face using a loop pile cutter or cushion back cutter such as Roberts 10146 or equivalent. **DOUBLE CUTTING, SERPENTINE CUTTING AND/OR TRACE CUTTING ARE NOT RECOMMENDED.**
2. In preparing the seam, determine the match points and the pile sweep of the pattern on both sides of the seam. If the carpet has "ATLAS EASY TRIM", it will have a black yarn on both edges, along with a row of missing yarn for trimming purposes. In some patterns the match point may be 18-19 inches in from the first match point; therefore one must be careful with the primary match point. The primary match point will be found within $\frac{3}{4}$ " of an inch from the factory edge. Using a dull screwdriver or a similar blunt instrument, run down (lengthwise) a tuft row coinciding with the pattern match line. Cut down this prepared line with the cutting tool, tilting the blade away from the side to be used in order to obtain a smooth edge. Perform the same method of cutting on the adjacent section of the carpet to be seamed. Cross seams must be prepared in a similar manner. Because of the difficulty in obtaining good pattern match in cross seams and fill seams, the material should be selected from the same roll.

D. ADHESIVE APPLICATION

All Atlas styles with an attached backing are compatible with many premium multipurpose carpet and premium quality seam sealers containing UV enhancers. It is important to ask your adhesive dealer for premium quality seam sealer and carpet glue that is compatible with polyurethane backings. Atlas recommends the following adhesives; WF Taylor 2057 (800) 868-4582, Roberts Consolidated Industries 3095 (800) 423-6545, Parabond 4099 (800) 763-7272, and Mapei ECO 185 (800) 992-6273

1. Trowel Size – Use a [1/8" x 1/8" x 3/32"] V-Notched type trowel. **NOTE:** A trowel with an insertable blade is recommended to maintain consistent notch size throughout the installation.

E. AFTER INSTALLATION

1. **Protect Until Occupancy** – Protect carpet from other trades people and heavy traffic until occupancy. If furniture or other equipment is to be rolled over installation, provide plywood or masonite sheets in traffic paths. Never cover the carpet with plastic until the glue has completely dried, usually in 24 hours.

NOTE:

Failure to provide adequate protection until occupancy, especially if carpet is installed before the work of all trades people has been completed, may result in damage and deterioration, and may void important warranties extended by Atlas.