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1. Scope

This document establishes minimum manufacturer's installation standards for woven Axminster carpet.

2. Documents and References

- Standard for Installation of Commercial Carpet* - CRI 104 –2002, The Carpet and Rug Institute

- Standard for Installation of Residential Carpet* - CRI 105 –2002, The Carpet and Rug Institute

– ASTM F-1869-98 – Test Method for Measuring Moisture Vapour Emission Rate of Concrete Sub-floor Using Calcium Chloride, American Society of Testing & Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428- 2959. www.astm.org

- Characteristics of Patterned Carpet Technical Bulletin*- The Carpet and Rug Institute

*Downloadable from The Carpet and Rug Institute web site www.carpet-rug.com

3. Terminology

Throughout this document the general terms "must," "highly recommended" and "recommended" are used to compare and contrast the different levels of importance attached to certain practices.

It is impractical to issue blanket rules intended to apply to every installation situation. In extenuating circumstances, deviation from portions of this standard may be appropriate. Carelessness is never acceptable and common sense should prevail in all cases.

- **Must:** When the term *must* is used in this document, it means that the practice or procedure is required or mandatory.

- **Highly Recommended**: When the term *highly recommended* is used in this document, it means that the practice or procedure is the generally accepted method to be followed.

- **Recommended**: When the term *recommended* is used in this document, it means that the practice or procedure is advised or suggested.

4. Temperature and Humidity

Carpet must be installed when the indoor temperature is between 65-95°F (18-35°C) and the humidity ranges from 10% to 65%. If ambient temperatures are outside these parameters, the installation must not commence until the HVAC system is operational and these conditions are maintained for at least 48 hours before, during and 72 hours after completion.

5. Testing of Concrete Sub-floors

Before making a direct-glue installation, the owner or general contractor, or their designated testing agent, must submit to the flooring contractor a written report on the vapour emission level and the surface alkalinity of the concrete. Testing must conform to ASTM standards.

Note: It is recommended qualified independent testing agencies be used for determining vapour emissions and alkalinity in the floor surface. Testing by an independent specialist to determine suitability for installation is a prudent and necessary safeguard for general contractors, owners, architects, flooring products providers and installation contractors. As a minimum testing agencies or individuals must demonstrate verifiable experience in vapour emission testing or be certified by recognised organisations, such as the Institute of Inspection, Cleaning and Restoration Certification (IICRC) or the equivalent.

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6. Moisture Vapour Emissions Testing

Concrete floors, even with adequate curing time, can present an unacceptable moisture condition by allowing excessive amounts of moisture vapour to pass through to the surface. This can be a problem even on suspended concrete floors. All concrete floors should be tested for moisture emission rate using an anhydrous calcium chloride moisture test kit available from installation supplies and accessories distributors. This quantitative method must be conducted carefully with strict adherence to ASTM Test Method F 1869. Moisture emission rate is measured in pounds of moisture over a 1000 ft² area during a 24 hr period. Because the calcium chloride test requires a minimum of 60 hours to conduct, proper installation planning is required. As a general guideline, an emission rate of 3.0 lbs. (1.4 kg) or less is acceptable, unless otherwise specified by the carpet manufacturer.

7. Alkalinity Testing

A pH range of 5-9.0 is satisfactory; however, a reading above 9.0 requires corrective measures. Testing should be performed in accordance with ASTM Standard Practice F-710; or consult the adhesive manufacturer for recommended testing and corrective procedures.

The results obtained reflect only the condition of the concrete floor at the time of testing. Further, the test site or building should be at the same temperature and humidity expected during normal use. These conditions must be maintained 48 hrs prior to, and during testing.

8. Planning

It is important to have all available resources at the job site. Check the availability of architectural drawings, layouts and seaming diagrams. Reconcile roll quantities with packing lists. Royal Thai must be informed immediately of any discrepancies.

9. Pattern Matching

To assist the installation company in pre-planning the installation, each roll has been measured and coded to help in laying out the best possible pattern match sequence.

An equal amount of patterns have been measured in each roll of carpet and recorded so the installer will be able to pre-plan the installation roll layout sequence. The installer will know which rolls will match best to each other prior to delivery and can plan accordingly.

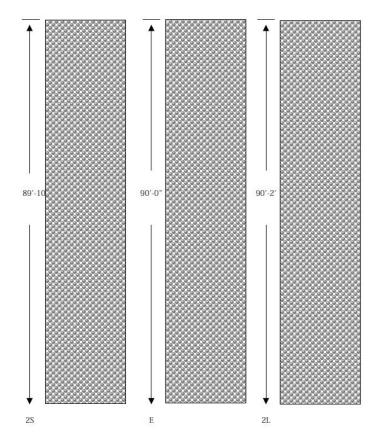
In order to explain the coding we will start by listing the **Codes**. They will be recognised as S1, S2, S3, E, L1, L2, and L3. The **Codes** are established by measuring the same number of patterns in the lengthwise direction of each carpet roll [approximately 90 feet each.] This measurement is recorded.

For instance, if we were working with a 36" pattern [3'-0"] and the patterns were made to the exact measurement, 30 patterns would measure exactly 90 ft. However, during the normal manufacturing process, the patterns may elongate or be slightly shorter than exact. This is why we have established a system to code the rolls, providing the installer with the lengths of each roll that have the same number of patterns each. This enables them to plan for the best installation, eliminating most pattern matching problems.



The rolls coded (E) have been established as the standard. In each of the remaining rolls the same number of patterns may be either shorter or longer than the (E) rolls. [See the following illustration.] Rolls that are coded with an (S) or an (L) and preceded by a number indicate that the same number of patterns were either shorter (S) or longer (L) than the (E) rolls in the 90"-0" span. The number that precedes the letter indicates the number of inches the patterns were shorter or longer than the (E) roll in 90 ft. For example, if a (2S) roll were put next to an (E) roll the (2S) roll would need to be stretched 2 inches to match the (E) roll. Conversely, the (E) roll would need to be stretched 2 inches to match the (2L) roll. The (L) rolls are the longest rolls and all other rolls will need to be stretched to match them. Rolls coded (E) will match best to each other and all other similar coded rolls will match best to each other. When similar coded rolls cannot be installed side to side, then rolls with the closest matching lengths should be used. It is normally beneficial to use the longer rolls first.

As one can see, with pre-planning of the roll layout sequencing, the installation will be **optimised** and pattern matching will be simplified. However, if these codes are ignored, the effort to pattern match can be very difficult and extra **labour** will be incurred to match the patterns and may make matching very impossible.



Pattern Matching Axminster



10. Seaming

Each seaming method requires the expertise of qualified carpet installer journeymen and the company contracted to do this kind of work should be pre-qualified with references.

10.1. Trim Selvage

In order to make a good seam, it is necessary to trim one or both selvages [not to include the face yarn of the pattern] using a "loop pile cutter."

Note: The selvage is the extended edge of the woven back and it may also include off-coloured yarn that extends farther than the face yarn of the pattern on each side of the roll width. It is best to make a test seam to decide the amount of selvage that you will need to trim off.



Important

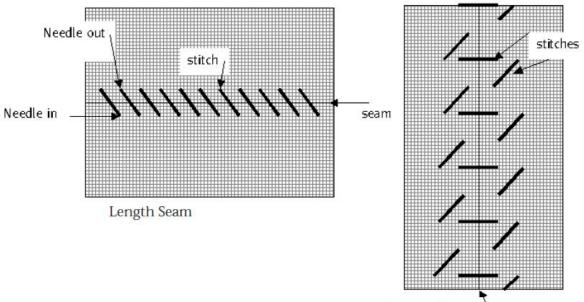
All cuts that are made in preparation for seaming must have a "bead" of latex adhesive applied to the side of the edge, being careful not to get any adhesive on the face yarn. You may dilute the latex slightly with water for better penetration.

As soon as you apply the adhesive, using your thumb, press the latex **into the base** of the carpet pile sealing the edge, being careful not to disturb the yarn.



10.2. Hand Sewing

For stretch-in over separate cushion, hand sewing by a qualified craftsman is the best method of seaming woven Axminster carpet. It is our experience that hand sewn seams produce the best long-range performance and appearance retention in commercial installations, better than hot melt tape, and are a must in large open spaces and areas where wheeled traffic is experienced.



Cross Seam

In sewing a "length seam" by hand you must pattern match the 2 pieces and join with a lock stitch or stay tack on a pole. Insert the needle in between the weft threads and keep the needle in a straight line each time you take a stitch. Your stitches should be less than $\frac{1}{2}$ " apart.

Reinforce the seam by applying the latex adhesive.

A "cross seam" may be hand sewn using a unique stitch which withstands power stretching. Cross seams are more pliable and receive less stress from the power stretching than "length seams" in Axminster installations. Because of this the tape seaming method may be used as follows.

Though hand sewing is considered by many to be the best method to seam, few installers have the needed experience necessary to hand sew properly. If seaming tape is to be used follow the guidelines below.



10.3. Hot Melt Tape

When hot melt tape is used, the carpet must have a 100% synthetic woven back. Orcon Super 3, or equal, 6" wide seaming tape can be used. In an Axminster installation, even when the seams are properly constructed, most length seam failure is due to the tape splitting; not the releasing of the adhesive from the carpet back. **Do** test for adhesive "bond" before constructing the seams. Use a **heat shield** on your seaming iron **at all times**. You may want to test a piece of scrap carpet for heat resistance to make sure you will not distort the face fibres with too much heat in this process.

Abut the two prepared runs, matching the pattern for the length of the seam. You will have to stretch both widths of the carpet runs at the seam and "stay nail" each piece before hot melting the seam with the tape. **Note:** Hot melt tape does reduce the amount of stretch at the seams. If prior stretching is not performed before the tape is applied, additional stretch in the middle of the carpet will cause a bowing effect across the pattern.

Roll out and centre the seaming tape under the two pieces to be seamed. Apply the preheated iron to the tape at the starting point and allow time to adequately melt the adhesive on the tape. Whenever possible, start at the end of a seam, allowing the iron movement to go all in the same direction. If the seam is a long one you may find it necessary to have your starting point at the centre of the seam and continue to the end. Return to the middle and proceed to the other end to finish.



Move your iron at an even speed, approximately 3 feet per minute, all the while pressing the carpet into the adhesive behind the iron with your hand or a seam roller (Ssmooth type, rather than spiked roller). Slide a flat, heavy object with a wooden base along the seam to keep the carpet flat as the tape cools. You must allow for sufficient cooling time before stretching.



10.4. Latex Adhesive and Pin Tape

For best results, the adhesive should be applied to the pin tape and to the back of each carpet width 1 χ'' in from the edge. Carefully bring the two pieces together avoiding any contact between the face yarn and the wet adhesive. The seams should be weighted and allowed to dry.

Note: The method of latex and pin tape does require some stretching before seaming even though is not as restrictive as the hot melt tape method.

10.5. Seam Adhesive

To prevent fraying and ravelling at seams, a 1/8-inch (3.2 mm) continuous bead of seam adhesive should be applied to the base of the first edge where the face yarn enters the backing. (See Figure 1.) This will seal the first edge as well as the second when the edges are butted together to form the seam.

Note: Second edge must be abutted while seam adhesive is transferable.



10.6. Rolling

Rolling should be performed with the lightest roller that will achieve proper transfer of the floor adhesive onto the carpet backing. Refer to manufacturer's recommendations for roller weight. Roll in both directions, but do not over roll.



11. Direct Glue-Down Installation

11.1. Additional Sub-Floor Requirements

Sub-floors must be clean, dry, and free from joints, cracks, depressions or protrusions that will show through the finished installation or cause premature wear. The floor should be free from contaminants that may interfere with adhesion.

Carpet, when bonded with an adhesive, will follow every contour of a substrate, essentially forming a skin. Seemingly insignificant imperfections in a sub-floor can become very obvious after the carpet is installed. Joints, cracks, depressions, bumps and other protrusions not properly addressed may be unsightly and cause premature wear. Dirt, dust, wax, oil, grease, moisture and other contaminants can prevent or otherwise destroy adhesion causing bubbles or widespread failure.

While some floor preparation is "normal," it is not the floorcovering installer's responsibility to correct deficiencies in the work of other tradesmen, such as carpenters and concrete finishers.

11.2. Trowel Notch Size

The minimum trowel notch size is 1/8 x 1/8 x 1/8. U - Notch

11.3. Floor Adhesive Application

The floor adhesive shall be spread uniformly over the sub-floor with the specified trowel leaving ridges of sufficient height to achieve full and complete coverage of the carpet backing. Trowel notches wear down during use. Maintain proper size throughout the installation. The carpet should be placed into the adhesive as soon as possible, allowing for any necessary pattern adjustments.

11.4. Alternative Adhesive Systems

Alternative systems such as spray adhesive or roll adhesive films are available for applying adhesive.

12. Double Glue-Down Installations

Site, environmental and ventilation conditions become even more important when performing double gluedown installations. In double glue-down installation, a separate cushion is adhered to the sub-floor, and the carpet is glued to the cushion.

Installers' Responsibility

Seaming methods on Double Stick installations must be determined by the installation contractor. It may be determined that the best method of seaming would include seaming tape along with the adhesives due to special conditions such as extra heavy traffic and/or rolling carts. If this is the case, seaming tapes designed for this method must be used.

12.1. Preparation

The sub-floor is to be dry and free from contaminants that will prevent good adhesion. Surfaces shall be vacuumed and thoroughly cleaned before applying the adhesive. Refer to Section 6.0 of this document for additional floor preparation requirements.



12.2. Adhesives

For the application of cushion to floor and carpet to cushion, select the appropriate adhesive from the list provided by Royal Thai in section 16 of this document.

The adhesive shall be spread uniformly over the cushion surface with the specified trowel. The carpet is to be placed into the adhesive as soon as possible, allowing for any necessary pattern adjustments.

Proper open time considerations are critical for a successful installation.

12.3. Seaming

Please refer to Section 10.

12.4. Rolling

Rolling shall be performed with the lightest roller that will achieve proper transfer of the floor adhesive into the carpet back. Refer to manufacturer's recommendation for roller weight. Roll in both directions, but do not over roll.

12.5. Installation Procedures

Cut seam edges with appropriate tools according to the carpet manufacturer's recommendations. To eliminate possible height variation at the seam, a sufficient amount of the factory edge or selvage must be trimmed. Seal seam edges with proper seam adhesive applied as recommended by the carpet or adhesive manufacturer. Roll installed carpet according to manufacturer's recommendations.

12.6. Carpet on Stairs

Properly secure carpet to tread and riser using appropriate adhesive. Stairs without a return (nosing) can be installed as one piece over the tread and riser. Stairs with a return should be cut and installed with the tread and riser being separate pieces. The stair return and nosing should be rounded 3/4 - 1 inch (19 to 25 mm) for proper carpet contact.

13. Stretch Installation

This method involves the installation of carpet under tension, utilising tackstrip fastened at all walls and other vertical abutments around the perimeter of the area. A separate cushion shall be used.

13.1. Tackstrip

Tackstrip should be a minimum of 1 inch (25 mm) wide and ¼ inch (6 mm) thick. Architectural strip with 3 rows of pins, or 2 rows of conventional strip, should be used. To prevent possible injury to building occupants, the pins on the tackstrip should not protrude through the carpet being installed.

13.2. Installation of Tackstrip

Tackstrip must be fastened securely around the perimeter of the area to be carpeted and at a distance of slightly less than the thickness of the selected carpet from all vertical abutments.

Tackstrip shall be placed with the pins angled toward the vertical abutment. The distance between the tackstrip and vertical abutments should not exceed 3/8 inch (9 mm).



Installation of tackstrip across door openings and/or sills should be avoided. Tackstrip should be cut to follow the contour of door casings and other irregularly shaped abutment

13.3. Separate cushion selection

Select the appropriate cushion from the list of approved manufacturers provided by Royal Thai in section 15 of this document.

13.4. Installation of separate cushion

Carpet cushion should be installed in the longest continuous lengths possible, with the seams placed at right angles to the carpet seams or at least 6 inches (150 mm) to one side. Cushion shall be trimmed flush with the inside contour of the tackstrip and securely fastened to the sub-floor with staples or non-flammable cushion adhesive at the seams and around the perimeter of each room. With the exception of fibre cushions, seams should also be secured with appropriate cushion tape.

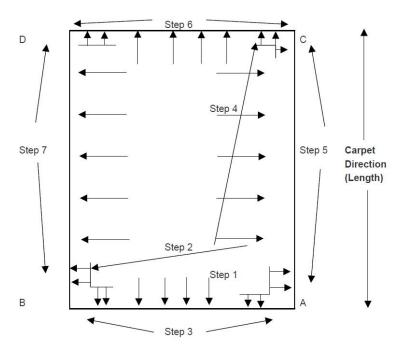
13.5. Seaming

Please refer to Section 10.

13.6. Power stretching

Carpet must be properly power-stretched and firmly hooked onto the tackstrip in accordance with the seven-step procedure described in *Figure 2*.

FIGURE 2 - Stretch Diagram for Axminster Carpet





Reminder – All stretch in Axminster carpet is in the length direction.

Step 1 - Hook onto tackstrip, approximately three feet in both directions, along corner A.

Step 2 - Power stretch from corner A to corner B and hook onto tackstrip at corner B.

Step 3 - Hook and secure onto tackstrip with knee kicker along wall from A to B, while aligning the pattern to the wall.

Step 4 - Power stretch the carpet "drum tight" at an approximate 15[°] angle from wall A-B and hook onto tackstrip at corner C.

Step 5 - Hook and secure onto tackstrip with knee kicker along wall from A to C, while aligning the pattern to the wall.

Step 6 - Power stretch the carpet in a straight line and "drum tight" from wall A-B to wall C-D starting at corner C moving toward corner D, aligning the pattern to the wall as you stretch and hook on to tackstrip.

Step 7 - Power stretch straight from wall A-C to wall B-D and hook along wall from B to D.

The use of a power stretcher is mandatory. Devices used as a substitute for, or an attachment to, a power stretcher may cause injury, damage carpet or sub-floors, or result in an inadequate amount of stretch and are not acceptable.

Failure to power stretch a carpet may result in:

- Wrinkling and buckling over time
- Localised damage to the carpet

Note: For patterned carpet, care must be exercised to ensure pattern alignment along walls. The use of a power stretcher, stay-nails, and a "dead man" may be necessary to achieve proper pattern match at seams and alignment along walls.

13.7. Amount of Stretch

Even though all the stretch is in the length of Axminster carpet, with no actual stretch in the width, it is necessary that the installation be power stretched both lengthwise and widthwise with a **Roberts'** Senior Stretcher #10-222 or equal to obtain adequate tension.

The pattern must be aligned and squared during the initial layout and this effort continued through the process. Begin the stretching by stay nailing or securely attaching the starting point in a straight line. Continue and finish the installation with the pattern parallel to the same straight line by which you began.

Recommended: The carpet installer should not attempt to stretch more than 36 feet at a time in either direction.

Caution: Wrinkling and buckling are most often caused by the failure to adequately stretch the carpet using a power stretcher, the use of an inappropriate cushion, adverse temperature and humidity conditions, or inadequate conditioning time.



13.8. Finishing at Wall Line

The installation shall be finished along the wall line, leaving a smooth, neat, and secure transition. The carpet shall be trimmed without damaging baseboards or mouldings, leaving sufficient material so the backing can be securely tucked into the gully without protruding face or backing yarns.

Note: Minor scratching of surface finish on baseboards and mouldings may be unavoidable during the tucking process.

13.9. Transition Moulding

Where carpet meets other floor coverings, the edges must be adequately protected with an appropriate transition moulding.

13.10. Sealing

Edges placed into transitional mouldings may require sealing to prevent raveling.

13.11. Carpet on Stairs

13.11.1. Preparation

Stair nosing and return must be rounded 3/4-1 inch (19 to 25 mm) to prevent sharp stair edges from cutting the carpet and/or cushion, and to provide proper carpet contact for adhesive installations. When carpet is installed over a separate cushion, the cushion must extend over the stair nose.

13.11.2. Stretch-In Installation on Stairs

Tackstrip is to be installed on each tread. Pins on the tread point toward the riser. On a waterfall type stair installation, tackstrip must be installed on risers. Pins on the risers point down to the tread. The gully between the strips is slightly less than double the carpet thickness. Where a turned finish is desired, tackstrip and cushion are about $1^{1}/_{2}$ inches (38 mm) less than the carpet width, allowing for a turn under on each side of the stairs. Some stairs require tack strip on the sides to maintain the proper tension. When using a cap and band or upholstered technique, tackstrip is not used on riser.

13.11.3. Carpet Direction on Stairs

Carpet length should be installed parallel to length of stairs.

14. Protection of Indoor Installations

14.1. Curing of Adhesive

Traffic over adhesive installations should be restricted for a minimum of 48 hours to allow proper adhesive cure. Premature traffic can cause installation failure. Exposure to water from cleaning or other sources should be restricted for a minimum of 30 days.



14.2. Materials for Protection

If required to protect the finished floor covering from dirt or paint, or if additional work is to be done after the installation, cover it with a non-staining building material paper. Protect the installation from rolling traffic by using sheets of hardboard or plywood in affected areas *Caution: Plastic sheeting should not be placed over any carpet installation because it may present a slip hazard. In addition, it may trap moisture, retarding adhesive cure and/or promoting mould and mildew growth. Care should be used when using protective films with tack-adhesive; some have been found to leave residual deposits, resulting in rapid soiling after removal of protective film.*

14.3. Maintain Temperature

Temperatures of indoor-carpeted areas should never fall below 50° F (10° C), regardless of the age of the installation.

15. Cushion Recommends

Royal Thai recommends that **OTP: 16-250-1/4" (Enhancer III) Commercial Carpet Cushion** be used for all Double Glue Installations. Royal Thai Recommended Installation Procedures must be followed.

Mainstream Extra Heavy Rolling Wheel Commercial Traffic requires OTP: 22-175-3/16" (Enhancer IV):

- Our mechanically frothed high density commercial cushion treated with Ultra-Fresh DM50 Antimicrobial virtually eliminates odour-causing **mould**, **mildew** and **fungus** that contacts the cushion (Per AATCC 147-30).

- Our superior load bearing products are time tested and proven to bring unparalleled comfort to feet, legs and muscles, help prevent carpet face yarn matting and crushing plus greatly extending the useful life and beauty of the consumer's major carpet investment.

- Our mechanically frothed polyurethane commercial carpet cushion passes the same fire codes as our commercial carpet (ASTM E-648 Radiant Panel – CLASS I)

- Moisture Barrier - Stops, contains and helps eliminate liquid spills away from carpet per British Spillage E test.

- Insulation Value - From 0.53 to 0.87 R-Factor insulation protection.

– Impact Noise Reduction - Absorbs from IIC 58 to IIC 75 impact sound noise in rooms and between floors.

Contact Royal Thai for purchasing information.



16. Adhesive Recommendations

16.1. EZAX Premium Pattern Match Adhesive

- Engineered exclusively for Axminster carpet
- Ultra-Strong bond with maximum extended working time of 1 ½ hours for greater installer efficiency
- 7 Year double-glue warranty
- Meets all Low VOC Emission Standards
- Approximate coverage 8-10 sy/yds per gal
- Trowel Size 3/16"x1/8"x1/8" U-Notch

16.2. EZPSA Pressure Sensitive Adhesive

- Adhere PVC and urethane backed carpet tiles
- Tiles may be lifted and replaced without damage to tile or loss of bond
- Meets all Low VOC Emission Standards
- Adhere Double Stick Cushion To Floor
- Approximate coverage 18 sy/yds per gal
- Trowel Size 1/16"x1/16"x1/16" V-Notch

16.3. EZLSA Universal Latex Seaming Adhesive

- Solvent free, fast grabbing adhesive forms an extremely strong bond
- Dries transparent, UV Tracer, easy clean-up

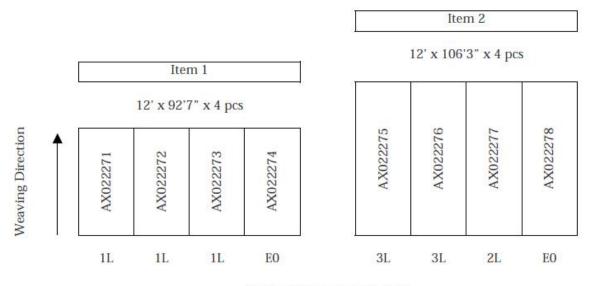
16.4. EZMES Moisture Emission Sealer

- Creates an integral barrier film to prevent moisture emissions from coming in direct contact with other sub-floor preparations

These products or an equal quality product must be used. Contact Royal Thai for purchasing information.



17. Pattern Match Diagram



Pattern match as above is ok

The (L) rolls are the longest rolls and all other rolls will need to be stretched to match them. Rolls coded (E) will match best to each other. All other similar coded rolls will also match best to each other. When similar coded rolls cannot be installed side to side, then rolls with the closest matching lengths should be used. It is normally beneficial to use the longer rolls first.

As one can see, with pre-planning of the roll layout sequencing, the installation will be optimised and pattern matching will be simplified. However, if these codes are ignored the effort to pattern match can be very difficult and extra labour will be incurred to match the patterns and may make matching difficult or impossible.

Note: The Pattern Match Diagram should be with every order. Please contact your nearest Royal Thai sales office for assistance.



18. Appendix I 18.1. Table 1- Suggested Tools & Equipment

- A. Tape Measures
- 1. 25-ft. (7.6 m) Retractable
- 2. 50-ft. (15.2 m) Metallic
- 3. 100-ft. (30.5 m) Metal
- **B.** Straight Edges
- 1. Rigid
- 2. Flexible
- C. Chalk Line and White Chalk (Only)
- D. Knives and Cutters
- 1. Utility Knife
- 2. Carpet Knife
- 3. Slotted Razor Blade
- 4. Cushion Back Cutter
- 5. Loop Pile Cutter
- 6. Wall Trimmer Conventional
- 7. Wall Trimmer Cushion Back
- 8. Carpet Shears
- 9. Nap Shears
- 10. Electric Rotary Knife
- 11. Hacksaw
- 12. Tin Snips
- 13. Tackless Strip Cutter
- E. Hammers, Mallets, and Fasteners
- 1. Carpenter's Claw Hammer
- 2. Tack Hammer
- 3. Rubber Mallet
- 4. Electric Stapler
- 5. Hammer Tacker
- F. Screwdrivers
- 1. Phillips
- 2. Standard

G. Trowels

H. Files

- 1. Triangular
- 2. Flat
- 3. Round



I. Rollers 1. 35 lb. (16 kilograms)

- 2. 50 lb. (23 kilograms)
- 3. 75 lb. (34 kilograms)
- J. Power Stretcher
- K. Knee Kicker
- L. Miscellaneous
- 1. Base Shoe Lifter
- 2. Drive Down Bar
- 3. Stair Tool
- 4. Awl
- 5. Nail Set
- 6. Sharpening Stone
- 7. Carpet Spreader
- 8. Pliers
- 9. 3-in. (76 mm) Hot Melt Seaming Iron and Shield
- 10. 6-in. (152 mm) Hot Melt Seaming Iron and Shield
- 11. Extension Cord and Adapter
- 12. Plastic Squeeze Bottle
- 13. Hammer Drill
- 14. Metal Miter Box
- 15. Moisture Test Kit
- 16. pH Paper
- 17. Carpet Seam Roller
- 18. Non-Metallic Seam Weight
- 19. Door Pin Remover
- 20. First Aid Supplies
- 21. Stay Nails
- 22. Carpenters Square
- 23. Pencil and Note Pad
- 24. Chalk Stick
- 25. Marking Pen
- 26. Thimble
- 27. Needles (curved and straight), thread
- 28. Putty or Colouring Sticks for Touchup of Wood
- 29. Vacuum Cleaner
- 30. Fans or Air Mover Devices
- 31. Dead man
- 32. "Crab" stretcher



18.2. Table II – Materials Checklist

A. Metal and Vinyl Mouldings

- 1. Binder Bars (applied after carpet is installed)
- 2. Cap Moulding
- 3. Stair Nosing
- 4. Accent Moulding
- 5. Metal Clamp-Down Gripper Bar (applied before carpet is installed)
- 6. Access Panel Moulding
- 7. Combo Metal

B. Seaming Tape

- 1. Latex
- 2. Hot Melt
- C. Tackstrip
- 1. Standard
- 2. Pre-Nailed (for wood)
- 3. Acoustical
- 4. Commercial (or Architectural)

18.3. Guidelines for Good Indoor Air Quality During the Installation Process

The consumer should always ventilate with fresh air during all phases of installation. This includes exhausting to the outside and avoiding re-circulation. Most emissions from the installation disappear quickly with adequate air exchange and ventilation.

- Vacuum the old carpet before removal to minimize the amount of dust particles. *Note: when selecting a new vacuum cleaner, look for units bearing the CRI Indoor Air Quality Program label. This label identifies vacuums that have been tested and meet minimum standards for dust containment, soil removal, and carpet appearance change.*

- Vacuum the floor immediately after the old carpet and cushion have been removed.

- Continue operating the ventilation system at normal room temperature for up to 72 hours after installation. If possible, open doors and windows to increase the flow of fresh air.

– If the carpet is to be glued to the floor, use a low-emitting floor covering adhesive. Low-emitting floor covering adhesives may be identified by the CRI Adhesive Program label on the container or by contacting CRI as indicated below.

- If any occupants consider themselves to be unusually sensitive, they may wish to avoid the area or leave the premises while the old carpet is being removed and the new carpet installed.

- If possible, unroll the new carpet in a well-ventilated area for 24 hours or more before installation.

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Look for and purchase carpet, carpet cushions, and floor covering installation adhesive products that display the Carpet and Rug Institute (CRI) Indoor Air Quality label. These three indoor air quality testing programs identify the products that have been tested and meet stringent indoor air quality requirements for low emissions. For further information on these programs, plus the CRI vacuum cleaner testing program, contact CRI at 1-800-882-8846 or visit their website at <u>www.carpet-rug.com</u>.

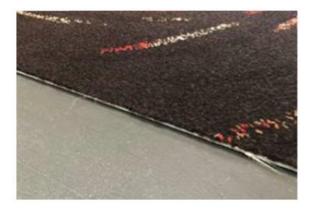


19. Appendix II

Re: Royal Thai Brand Premise (EcoSoft) Back Axminster Tile:

Upon unboxing the Woven Axminster Tile, there may be some remaining 'weft' tapes visibly protruding at the cut edges, specifically the north/south edges, which are a characteristic attributed to cut edges of woven backing.





Due to the rigors of transportation (tile edge rub on inner carton), some weft tapes may get disturbed and as a result protrude from the tile seam - specifically on the north south edges. Post unboxing of the tiles these weft tapes can be easily trimmed either prior to or post placement of the tile onto the prepared adhesive bed by careful trimming at the base of the pile using napping shears **WEFT TAPES SHOULD NEVER BE REMOVED FORCEFULLY PULLED BY HAND**