

SIENA COMMERCIAL INSTALLATION INSTRUCTIONS

Before Cutting This Material Stop And Check The Following:

STYLE ... IS IT WHAT YOU ORDERED?
COLOR ... IS IT THE RIGHT COLOR?
PATTERN ... IS THE PATTERN CORRECT?
SIZE ... IS THE SIZE CORRECT?
DYE LOTS ... ARE THE DYE LOTS CORRECT?

LOOK FOR VISUAL DEFECTS

To Report Any Concerns With The Carpet – Call 1-888-977-4362

No Claim will be considered for improper installation, use of improper adhesive, trowel size or failure to seal seams.

Note: iLoc® adhesives and seam sealers must be used with the iLoc® backing systems. **Read all instructions carefully prior to beginning any installation.** Improper installation of carpet may void consumer's warranties. The instructions contained within are in addition to the minimum guidelines set forth in the Carpet and Rug Institute "Standard For Installation Of Commercial Textile Floor Covering Materials" (CRI-104).

Installer Qualifications: Installation should be accomplished by a Floor Covering Installation Board (FCIB) certified firm or an installer who can demonstrate compliance with the FCIB certification program. Call 800.882.8846 for verification or certification. Other valid certifications are Floor Covering Installation Contractors Association (FCICA) and the international Certified Floorcovering Installers association (CFI).

SITE PREPARATION

Temperature and Humidity: The environment in which carpet is to be installed must be controlled with the temperature between 65°F and 95°F (18°C and 35°C) and the relative humidity between 10% and 65%. The subfloor temperature should not be less than 65°F. These conditions must be maintained for at least 48 hours before, during and after the installation. Any big changes in temperature could cause difficulties with the installation (CRI-104 Sec.6.1).

Testing of Concrete Subfloors: It is the Owner or General Contractor's responsibility to provide to the Flooring Contractor a written report on moisture and alkalinity content of the slab to ensure suitability for installation. If the concrete slab exceeds the permissible amount of moisture and alkalinity the Owner or General Contractor are responsible for making the necessary correction prior to carpet installation. These tests should be performed and documented not less than once every 1,000 square feet. Refer to CRI-104 sections 6.3.1 and 6.3.2 for more details.

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

Moisture Testing: Both Siena and the CRI recommend a calcium chloride moisture test kit be used to determine the moisture emission rate of concrete slabs. The maximum permissible

emission rate for moisture barrier backings and carpet tiles is 3 pounds. Ratings between 3 and 5 pounds are considered acceptable for products with a porous backing. Subfloors exceeding these moisture ratings will re-quire corrective measures.

SITE CONDITIONS

Floor Preparation: Each subfloor shall be inspected to determine the special care required to make it a suitable foundation for carpet. All floors must be clean, dry, free of dust, grease, wax, curing agents, excessive alkalinity, paint, old adhesive and any foreign substance that would prohibit proper bonding of the carpet to the subfloor (CRI-104 Sec.6.2 – 6.2.10).

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

SEAM AND EDGE PREPARATION

Row Cutting Seams: Siena requires all seams to be row cut with exception to printed patterns. **Be sure** to row cut edges on pattern, trimming off a sufficient amount of rows from each side. This procedure creates a good cutting surface and removes any potential loose edges. No tufted pattern carpet will be matchable unless this row cutting requirement is strictly observed. The steps required in row cutting involve: **1.** Reviewing the tufted pattern for the correct place to trim edges. **2.** After verifying where to trim edges, use an awl or flat blade screwdriver to open the tufted row, to create a cutting guide. **3.** Use a loop pile or cushion back cutter to trim along the row. **4.** Be sure to replace cut-ting blades as often as needed.

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

Seam Sealing Glue Down Seams: All seams must be properly sealed using a continuous bead of seam adhesive large enough to cover the primary backing, yarn bundles and secondary backing (CRI-104 sec. 8.5). Our latex backings can be seam sealed with either a solvent or non-solvent based seam adhesive. Our polyurethane backings must be sealed with a non-solvent seam adhesive. We recommend our Sure N' Easy seam sealer.

Seam Sealing Hot Melt Seams: A good quality latex seam adhesive (Sure N' Easy) should be applied to both cut edges and allowed to dry completely prior to beginning the hot melt seaming process.

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

CUSHION RECOMMENDATIONS

When performing a Stretch-In installation proper cushion choice is very important. Cushion, which is too soft or too thick will cause excessive flexing of the carpet and result in open seams, delamination and re-stretching problems. Siena's cushion requirements are as follows: density

of 12 lbs./ft.³, or greater with a **maximum** thickness of ¼”.

DOUBLE-GLUE INSTALLATIONS

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

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

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

INSTALLING PATTERNED CARPET

Plan To Power Stretch: Siena requires the use of a “Senior Power Stretcher” for all stretch-in installations and for stretching to match pat-terns in direct glue and double glue installations. Knee kickers should only be used to position carpet, never to install, achieve final stretch or pattern match.

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

SCOPE OF PROJECT: It is the responsibility of the installation contractor to understand the project scope, which includes the product selected for installation and properly addressing any additional installation steps in the original labor quote. Siena will not be responsible for any additional labor incurred on pat-tern installations that should have been addressed in the original labor quote.

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

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

Again, all pattern products must be dry laid first!

Sequencing by pattern count measurement (largest to smallest) will guarantee that you are

always stretching the smaller patterns to the larger ones. Typically, the installer should be prepared to overcome 1" of pattern elongation in 12 feet on any pattern installation. However, as much as 2" of pattern elongation can be corrected in a 12' length. The goal is to install the longest pattern first, then the next longest, and the next longest and so on. This procedure is critical in that it is impossible to shrink a longer pattern to match a shorter one. See diagram in the next column for proper pattern sequencing layout.

Example: Ten pattern repeats were measured on each roll and the measurement determines sequence. Roll #1 is stretched to Roll #3, Roll #4 is stretched to Roll #3 and Roll #2 is stretched to Roll #4.

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

Direct Glue: After roll sequencing is established and carpet is dry laid, glue half of the roll with the longest pattern measurement and half of the roll with the next longest pattern measurement lengthwise. Apply seam sealer and power stretch the roll with the shorter pattern measurement to match the longer one by starting in the center of the seam and stretching towards the ends. Stay nails may be required to secure the carpet as the adhesive sets.

Stretch-In: Establish roll sequencing, dry lay carpet and apply latex seam sealer to both edges. Pre-stretch the sections with shorter pattern measurements to align with longer patterns in order to make hot melt seam (**use 6" tape to prevent seam peaking**). A two-headed power stretcher or "deadman" must be use to achieve this. Once the seam is made, proceed with proper stretch installation (CRI-104, figure "Stretch Diagram"). The use of architectural or double tackless strip is required to be used throughout a stretch-in installation.

Below are diagrams of the additional inherent characteristics of patterned carpet, followed by the installation steps for each one.

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

Correcting A Bow

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

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

pattern across the width and make up the shortfall of carpet pattern on the opposite side of the room.

Stretch-In: Sequence rolls accordingly. Make side seams, being sure to match pattern. After side seams are created, cut both ends on pattern. Stretch the short edges to the wall and align the pattern. Continue to stretch accordingly to align the pattern to all walls.

Correcting A Skew

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

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

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

Correcting Trueness of Edge

As the diagram shows, carpet that has trueness of edge variations takes on the shape of an S. This condition is relatively easy to correct and should not prevent proper pattern matching. **Remember**, even in this situation, the seams must be row cut on pattern (follow the S shape) and straightened using the techniques below.

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

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

SUMMARY

Remember when installing a product finished with one of our iLoc[®] backings the appropriate iLoc[®] adhesive and seam sealer must be used.

See our web site sienausa.com for more backing and adhesive information.

If you have any questions concerning the information contained in this installation roll insert or need further assistance, please contact the Siena Technical Services Department at (888) 977-4362. We also have available the CRI-104 Installation Guidelines.