

# DOUBLE-GLUE INSTALLATION GUIDELINES

## for FOUNDATION Contract Carpet Cushion By Healthier Choice

### **SUMMARY**

The double-glue installation method is a standard approach to cushioned carpet in the commercial setting. The process involves adhering the cushion to the floor, followed by adhering the carpet to the installed cushion. In both steps, only adhesives identified by the adhesive manufacturer as appropriate for double-glue installations are used. The double-glue method allows for a choice of cushion and the ability to accommodate most flooring configurations, while providing the ergonomic and carpet life-extending benefits for which the cushion has been designed. Healthier Choice offers several products listed below that have been specifically designed for double-glue installation. Conformance to recommendations is necessary to ensure long-term installation performance. The double-glue method of installation is appropriate in most commercial settings, small or large.

Carpet installation should be performed by professional installers with specific training in commercial carpet installation. Many installers are certified by the International Certified Floorcovering Installers Association (Master or C-II), are members of the Floor Covering Installation Contractors Association (FCICA), or are employed by floor covering contractors certified by the Floor Covering Installation Board (FCIB).

Additional information relevant to the installation of commercial carpet can be found in "CRI 104 - STANDARD FOR INSTALLATION SPECIFICATION OF COMMERCIAL CARPET" published by the Carpet and Rug Institute.

***NOTE: Not every carpet, backing or adhesive is suitable for double-glue application. Confirm suitability of carpet and adhesive choice with the respective manufacturer.***

### **CUSHION CHOICE**

The starting point in commercial applications is choosing an appropriate commercial carpet cushion for a particular application. Each of the Healthier Choice commercial cushions listed below has been designed for commercial double-glue applications.

PRODUCT	DENSITY (LBS/CU. FT.)	THICKNESS (INCHES)
FOUNDATION HT	16	0.175"
FOUNDATION SE	12	0.250 (1/4")
FOUNDATION XP	16	0.250 (1/4")

Physical properties subject to +/- 7% manufacturing tolerance

### **PRE-INSTALLATION CONSIDERATIONS**

- In double-glue installations over new or existing concrete slabs, the potential for installation performance problems exists if excess moisture or alkalinity is present. These conditions can degrade the adhesive over time. Prior to installing over a concrete slab, always confirm that moisture and alkalinity are within acceptable limits. A calcium chloride moisture test kit for this purpose is commonly available from installation product suppliers. With careful use, this test will produce reliable results. Note that proper planning is critical as the test requires 60-72 hours to conduct.

- As a general guideline, a moisture emission rate of 3 lbs/1000sq. ft./24 hours and a pH between 5 and 9 are acceptable for most carpets. Beyond these limits, the risk of moisture or alkalinity related problems increases. Although corrective measures may be available if limits are exceeded, it is important to consult the individual carpet manufacturers to determine the acceptable limits for particular products and, where necessary, proper corrective measures.
- When planning a double-glue installation, you may confidently select from the list above. With the great variety of carpets and adhesives available for commercial installations, confirm that the manufacturers recommend their products for the double-glue method as a prerequisite to installation. For specific instructions concerning double-glue installation of the chosen carpet style contact the carpet manufacturer's installation department.

## **Site Conditions**



- The space in which the carpet is to be installed must have adequate temperature and humidity control to facilitate proper installation. Beginning 48 hours before the installation and continuing at least 72 hours following completion of the installation, the temperature must be maintained between 65° F and 95° F and the relative humidity between 10% and 65%. If installing over concrete, the slab temperature should not be less than 65° F. during installation and maintained at a minimum of 55° F at all times following completion of the installation.

## **Floor Preparation**

- The floor should be free of holes and loose tiles or boards. Repairs should be made as necessary to provide a smooth surface for carpet and cushion installation. The floor should be dry and dust-free. All contaminants that may prevent good adhesion must be removed. Floors should be vacuumed, mopped if necessary, and otherwise thoroughly cleaned prior to carpet installation. Excessive use of water for cleaning is not recommended, though mopping with a slightly damp mop is useful to remove dust from the floor surface. Tack strip properly spaced and secured may be used to hold the carpet edges in place. If tack strip is used, Tri-Tack or architectural tack strip is recommended.



CAUTION: Always allow the cushion to acclimate to room temperature for 12 to 24 hours prior to installation.

## **Cushion Layout**

- The cushion should be laid out in the longest lengths possible so that the cushion seams will run perpendicular to the carpet seams. If the seams cannot be at right angles to the carpet seams, the cushion seams should be kept at least 6" from the carpet seams. Cushion seams must be butted without compression, leaving no gaps. Any excess along the perimeter walls should be trimmed and fitted.



NOTE: Foundation Carpet Cushion can be adhered fabric side up or fabric side down.

## **Adhesive Selection**

Adhesive selection is one of the most important decisions in any double-glue installation. Healthier Choice does not recommend any specific adhesive manufacturer or product. However we do provide our products to adhesive manufacturers for qualification of their adhesives with our products.

Healthier Choice attempts to maintain an up-to-date list of adhesive manufacturers that have qualified their adhesives with the Foundation line of premium double-glue carpet cushion.

Please visit our web site or call to see if additional adhesive companies have been added since this printing.

AAT (800) 228-4583  
APAC (706) 277-7095  
Bostik (800) 523-6530  
DriTac (800) 394-9310  
Mapei (800) 992-6273  
Para-Chem | (800) 763-7272  
Roberts | (800) 840-9422  
Stauf USA | (866) 458-3872  
Slocum Adhesives | (804) 847-5671  
W.F. Taylor | (951) 360-6677 x125

## **Gluing the Cushion to the Floor**

### **Pressure Sensitive Adhesive or Premium Multi-Purpose:**

- Once all of the cushion for an area has been laid out and trimmed, in one section at a time the cushion should be folded back and adhesive applied to the floor. Special attention should be given to spreading the adhesive adjacent to the walls (cut-in) to prevent edge curling. The adhesive should be applied with a notched trowel according to the adhesive manufacturer's recommendations. It is not recommended to apply the adhesive with a paint roller due to the potential of inconsistent application. To ensure sufficient bond of the adhesive, the cushion should be laid into the adhesive while in a "tacky wet" condition. For pressure sensitive adhesives, this point is often identified when the adhesive turns clear from its original opaque appearance. Smooth the cushion into the adhesive working toward the seams. Eliminate any bubbles or wrinkles and make sure that the seams meet without tightness, compression, or overlap. A 2" wide moisture resistant tape such as duct tape should be used on all cushion seams to ensure seam integrity and to avoid telegraphing through to the carpet face.

## **Carpet Layout**

- After the cushion has been secured, cut the carpet to the proper length and spread out in the area to be carpeted. The carpet should be cut 3-4 inches (75-100 mm) longer than the area measurement. Where applicable, allow for pattern repeat. Carpet seams should be at a right angle to cushion seams or offset at least 6 inches (150mm) to either side. Align all carpet breadths to their proper position and trim seams. Care must be taken to avoid cutting into the cushion under the seam.

## **Gluing Carpet to Cushion – Premium Multi-Purpose Adhesive**

***NOTE: It is imperative that premium multi-purpose adhesive formulated specifically for double-glue installation be applied using manufacturer recommended trowel notch size and shape.***

- The floor adhesive must be spread uniformly over the cushion with an appropriate trowel, leaving ridges of sufficient height to achieve full and complete coverage of the substrate and carpet backing, including penetration into the backing's deepest recesses.
- Test Area: Confirm amount and placement of adhesive by installing a small area, then lifting the carpet, noting adhesive transfer and coverage into backstitch of carpet. If insufficient coverage is seen increase notch size and recheck.
- Once adhesive has been spread for a given section follow adhesive manufacturer's recom-

mendations for open time so as to allow even distribution and penetration of adhesive on all areas of carpet backing.

*NOTE: Proper open time considerations are critical for a successful installation. Installing carpet into the adhesive without sufficient open time may result in installation failure. The use of fans will reduce required open time and promote tackiness. However, be aware that excessive air movement will accelerate the drying time and may prevent sufficient transfer of adhesive to the backing of the carpet.*

- Using a roller, roll in both directions to promote complete adhesion of carpet to cushion. Rolling must be performed with the lightest roller that achieves proper transfer of the adhesive into the carpet back. Refer to carpet manufacturer recommendation for roller weight. Roll the carpet in both directions. Carefully squeegee any bubbles to edges or seams prior to full adhesive set up time. Woven carpet must be rolled a second time 3 to 12 hours after initial rolling to make sure a strong bond is established. Double-glue installation of unitary products is not recommended due to the potential of installation failure. Prevent all traffic over carpeted area for a minimum of 24 to 48 hours after installation. Failure to do so may create areas of inadequate adhesion between carpet and cushion and may lead to future problems.

## **Other Installation Considerations**

- **Cleaning:** Exposure to water from cleaning and other sources should be restricted for a minimum of 30 days. Dry cleaning systems are preferred.
- **Adhesives:** Certain types of carpet backing and adhesives are not compatible. Follow manufacturer recommendations as to the correct adhesive and application. Verification of trowel settings, open time and additional questions should be referred to your adhesive manufacturer.
- **Seaming:** Depending on carpet manufacturer recommendations, seams may be hand sewn, butt-seamed and glued, or hot melt taped using a low profile, non-silicone treated hot-melt tape appropriate for double-glue installations. The method used to seal seams on a direct-glue installation is also an acceptable method when the correct seam sealer is used. Seam adhesive should be applied in a manner that encapsulates both primary and secondary backings.

## **Double-Glue Procedures for Stairs:**

- Pre-cut and dry-fit the carpet before commencing the stair installation. Position tack strip on the tread and riser and install as with a conventional installation. Install cushion extending completely over the bullnose (typical radius:  $\frac{3}{4}$ -inches). After the cushion is adhered, apply the double-glue adhesive on top of the cushion. Install carpet into the wet adhesive, which will become pliable and easier to stretch.

## **Installing Patterned Carpet:**

*NOTE: Pattern adjustment during installation is possible and should be anticipated.*

- If tolerances exceed manufacturers published specifications for trueness of edge, bow, skew and pattern elongation, contact manufacturer before proceeding.
- Lay the carpet in the designated area. When preparing to construct the seam, begin by matching the patterns in the center of the seam. Work from the seam's midpoint to the seam ends. Bring the pattern into register using appropriate tools that might include:
  - Power stretcher
  - Knee kicker
  - Dead man
  - Dry lines
  - Stay nails
  - Mini-stretcher with seam repair attachment ("crab stretcher")

Fold sections of carpet back on each side and spread adhesive onto cushion using the proper notched trowel. Lay the sections in wet.

Seal the edges with the appropriate seam sealer. Then using the knee kicker, deadman and/or power stretcher, align pattern while constructing the seam using stay nails to hold in place.

**TROWEL SIZE - MINIMUM GUIDELINES**  
(From CRI 104 2002 Ed. P. 27)

Application	Adhesive Type	Notch Width (inches)	Notch Depth (Inches)	Space	Notch Shape
Applied between floor and cushion	Latex	1/8	1/8	1/16	U-shape
Applied between cushion and carpet (Smooth)	Latex	1/8	1/8	1/16	U-shape
Applied between cushion and carpet (Rough)	Latex	1/8	3/16	1/8	U-shape

**NOTE:** These trowel guidelines are provided for reference in the event specific recommendations are not available from the carpet manufacturer and/or the adhesive supplier. In the case of trowel recommendations, rough, porous concrete surfaces and heavily textured carpet backs may require deeper notches than listed above.

These installation guidelines are consistent with CRI 104 published by the Carpet and Rug Institute.

These guidelines have been prepared to provide some helpful ideas and information in the installation of Foundation double-glue contract carpet and cushion. Anyone installing double-glue commercial carpet and cushion has an independent obligation to ensure that they implement sound plans, actions, and practices for their installation and meet all relevant laws, codes, or standards. Installers may vary their approach based on the needs and circumstances of a specific installation. Due to the multitude of variables that can and do affect installation practices, Healthier Choice does not make any warranty, either express or implied, with respect to the accuracy or completeness of the information contained in this guideline.

For more information, contact us at (800) 872-8426 or visit our web site [www.healthierchoice.com](http://www.healthierchoice.com)

Carpet, Cushion, and Installation Web Sites
Carpet & Rug Institute ( <a href="http://www.carpet-rug.com">www.carpet-rug.com</a> ) American Floor Covering Institute ( <a href="http://www.carpethelp.com">www.carpethelp.com</a> ) Carpet Cushion Council ( <a href="http://www.carpetcushion.org">www.carpetcushion.org</a> ) Floor Covering Installation Contractors Association ( <a href="http://www.fcica.com">www.fcica.com</a> ) Floor Covering Installation Board ( <a href="http://www.fcibcertified.com">www.fcibcertified.com</a> ) International Certified Floorcovering Installers Association ( <a href="http://www.cfi-installers.org">www.cfi-installers.org</a> )