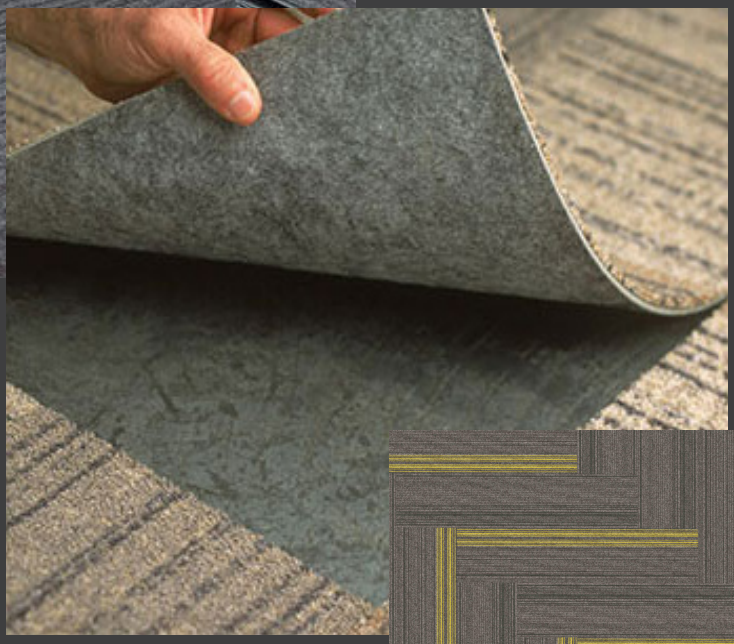
Standard CARPETS

CARPET TILE INSTALLATION MANUAL



MADE TO FLOOR THE WORLD

www.standardcarpets.com

CONTENTS

OBJECTIVE

Standard Carpets has adopted the Carpet & Rug Institutes (CRI) installation standard, as a basic minimum industry guideline for the installation of its carpet products. This manual has been prepared to assist professional contractors to install Standard Carpets modular Tiles.

This instructions cover the important common installation circumstances and it will help them understand the right methods of sub floor preparation, adhesives and dos and don't s.

MODULAR CARPET TILES

CARPET TILE DEFINED AS VARIOUS SHAPES AND SIZES OF CARPET PRECUT DURING MANUFACTURING WITH APPLIED BACKINGS.

FOR FURTHER INFO ON MODULAR CARPET TILES PRODUCT PLEASE VISIT OUR WEBSITE.

WWW.STANFDARDCARPETS.COM/CARPETTILES

FOREWORD

Products have unique characteristics and each installation project should be carefully evaluated to determine the proper application of this standard.

Proper specification for carpet includes installation by a certified carpet professional and strict compliance with the installation guidelines set forth in the CRI Carpet Installation Standard, unless otherwise specified by Standard Carpets, and also includes the use of proper installation sundries.

INSTALLATION REQUIREMENTS

Due to the variation in tile size, shape, backing and installation methods (monolithic,ashlar, quarter turn, etc.) follow the carpet manufacturer's recommendations.

Notice – Contractor or Installation contractor is responsible for inspection of the product prior to installation. Standard Carpets will not be responsible for visible defects after tiles have been installed.

PLANNING

Products have unique characteristics and each installation project should be carefully evaluated to determine the proper application of this standard. It is the responsibility of the contractor to verify few things before the installation.

All facets of the installation are to be coordinated. A scale drawing of the area to be installed is required to determine type of carpet, carpet quantities, quantity per dye lot,installation method, cushions, adhesives, transition moldings, wall base types and other accessories, and to identify the proper location of seams.

- On new construction, contractors need to have the architectural drawings that define the entire installation area with space names or numbers and a finish schedule of flooring style, patterns, colors and installation methods.
- On existing structures, they need new measurements and shop drawings.

Consideration should be given to carpet and adhesive conditioning, material delivery considerations, material reclamations and other trades' schedules.

PLANNING CONTINUED...

1. Shop Drawings

The carpet shop drawing is required to contain the following information:
· Name of the job, owner and installation company. On new construction the name of the general contractor and architectural firm are required.
· Building address
· Date of drawing
· Scale
· Floor number and location in building
· Compass direction on each sheet
· Drawing for each area to be carpeted (color coding is preferable)
· Construction of substrate for each area
· Required floor preparation, materials and quantities.
· Type of installation for each area
· Exact notations where dye lot changes occur
· Proper quantities of installation materials needed for each area including but not limited to:
· Carpet needed for each area, length of pattern repeats, manufacturer pallet sequence (where applicable)
· Specified adhesives per manufacturer instructions
· Excess material in each area and how it is to be used
· Seam layout of each area
· Carpet pile or pattern direction for each area
· Name of manufacturer, style, backing system and color of carpet for each area
· Large scale drawings showing treatment of step areas or other detail work
· Location and type of expansion joints and edge transitions.
· Type of wall base in each area.

PLANNING CONTINUED...

2. Planning for Seams

Keep seams to a minimum. When possible, position seams so that:
· Seams run the length of the area.
· Main traffic flow runs along rather than across the seam.
· Natural light does not strike across the seam.
· Seams are away from areas subject to pivoting traffic.
· Seams are not perpendicular to doorway openings.

3. Transitions of Other Surfaces

Where carpet transitions to other floor coverings, the carpet edges are required to be protected or covered with appropriate transition moldings. The edge of the hard surface flooring should not exceed a maximum of 1/16" higher than the total carpet thickness where no transition molding exists.

4. Carpet Over Expansion Joints

Do not install carpet over expansion joints (refer to Definitions of Terms section at the end of this document.). Expansion joints allow separate substrate surfaces to expand and contract independently. In addition, do not install on any area of a floor that does not provide a stable and mechanically sound surface. This does not include cut or saw joints within a section of the floor. Non-stable/unsound substrate joint conditions are required to be addressed in strict accordance with the appropriate architectural drawing. If no expansion joint device is specified on the drawing, the building owner, owner's representative, or other responsible party is required to be made aware that failure to address expansion joints will potentially result in installation failure, damage to the carpet and/or safety concerns.

PLANNING CONTINUED...

5. Pile Direction

Where two or more pieces of the same carpet are adjacent, the pile direction is required to be the same unless otherwise specified. Uniform pile direction is not required with dissimilar carpet.
NOTE: Ideally, install carpet with the pile lay toward the entrance; but other factors, such as pattern, aesthetics and economic use of material may be considered.

6. Pattern Matching

Consult the manufacturer for specific installation requirements and possible warranty
conditions.

TESTING

The Moisture Vapor Emission Rate, Relative Humidity & Alkalinity testing must be performed to give an accurate assessment of the concrete condition and the test results/data of each test shall be within acceptable limits.
Before direct glue-down, double-glue down, free floating carpet tile systems and some stretch-in installations, the owner or general contractor, or their designated testing agent,is required to submit to the flooring contractor a written report on the moisture and alkalinity conditions of the concrete substrates.
Proper testing is essential for a successful installation and any deviation from these industry accepted test methods often results in an installation failure and may void manufacturers' warranties.

NOTE: It is recommended that qualified independent third-party testing agencies be used for determining moisture and alkalinity conditions of a concrete slab. Testing by an independent third-party specialist to determine installation suitability is a prudent and necessary safeguard for general contractors, owners, architects, flooring product providers and installation contractors to reduce the risk of concrete slab moisture related flooring problems. As a minimum, testing agencies or individuals are required to demonstrate verifiable experience in concrete moisture testing or be certified by a recognized organization.

TESTING CONTINUED...

1. Moisture Vapor Emission Rate (MVER) Testing

MVER tests must be conducted in accordance with the current version of ASTM F 1869, not to exceed manufacturer's requirements (ASTM F1869 - Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride).

2. Relative Humidity (RH)Testing

Testing for internal relative humidity of concrete slabs must be conducted in accordance with the current version of ASTM F2170, not to exceed manufacturer's requirements (ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes).

3. Testing for Alkalinity

Testing the pH at the surface of a concrete slab must be conducted in accordance with the current version of ASTM F710, not to exceed manufacturer's requirements (ASTM F710-Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring).
NOTE: Preparing the surface of a concrete slab for pH testing can be problematical. Make sure, the concrete surface is adequately cleaned of adhesives, curing compounds etc. When pH readings are less than 7, it may be an indication of a residue remaining on the concrete surface. Also use care not to over clean the surface of the concrete, consequently removing the (usually) thin layer of carbonation. This can result in pH readings >12.

SITE CONDITIONS

Proper site conditions as outlined in this section are essential for a successful installation and any deviation often results in an installation failure and may void manufacturers' warranties.

NOTE: Installing carpet before other trades have completed their work may result in problems with: overall appearance, visible damage, soiling, adhesive failure, delamination and dimensional stability. These conditions may not be immediately evident.

1. Substrate Conditions

The owner or general contractor is responsible for providing an acceptable substrate for the specified installation. Carpet is required to be installed over properly prepared substrates that are suitable for the specific product and installation method selected. All cracks, holes and flooring irregularities are required to be repaired to ensure a flat, smooth substrate, prevent accelerated wear and telegraphing substrate irregularities.

2. Ambient Temperature and Humidity Suitable Substrates

The installation is not to begin until the HVAC system is operational and the following conditions are maintained for at least 48 hours before, during and 72 hours after completion. The carpet is to be installed when the indoor temperature is 65-95ºF (18-35ºC) with a maximum relative humidity of 65%. The substrate surface temperature should not be less than 65º F (18º C) at time of installation. Do not allow the temperature of indoor carpeted areas to fall below 50º F (10º C), regardless of the age of the installation.
If these conditions are not attainable, contact the flooring manufacturer for applications to warranty.
NOTE: If the above conditions are not met, installations may be susceptible to moisture related failures including but not limited to dew point condensation.

SITE CONDITIONS CONTINUED..

3. Ventilation

During installation, maintain air circulation by operating the HVAC system at full capacity.

NOTE: For acceptable indoor air quality, fresh air ventilation in commercial spaces is recommended to conform to current guidelines specified in ASHRAE Standard 62 published by the Americal Society of Heating,Refrigerating and Air Conditioning Engineers (www.ashrae.org). Failure to comply could cause negative ramifications to the installation and the indoor air quality.

TYPES OF FLOOR

1. Concrete

Concrete must be cured, clean, dried and tested in accordance to Planning >Testing section of this document. If the carpet is to be installed using an adhesive, the concrete should be free of dirt, grease, oil, curing or parting agents, and other contaminants, including sealers, that may interfere with the bonding of adhesive.

NOTE: It is not recommended to chemically treat (abate) substrates. These chemicals are difficult to completely remove and will adversely affect new adhesive and carpet.

Whenever a powdery or porous surface is encountered, a primer/sealer compatible with the adhesive should be used to provide a suitable surface for the glue-down installation.

NOTE: Any concrete floor, even when adequately cured and dry, can allow moisture vapor to pass through to its surface. Depending upon the type of carpet and method of installation, the moisture emission rate greatly influences the long-term success of an installation. The use of a properly installed, uncompromised, approved moisture membrane is essential in preventing moisture migration into and through a concrete slab.(Ref. ASTM F 710)

2. Moisture Mitigation Systems

Concrete that has been treated with a moisture mitigation system will render the substrate non-porous. Before installation, a bond test is recommended. If the bond test fails, the substrate must be adequately prepared to accept adhesive.

TYPES OF FLOOR CONTINUED...

3. Wood
Wood substrates are required to be structurally sound, flat, dry and securely anchored.
Substrates, such as plywood, hardwood, particleboard, oriented strand board, or other materials, are required to be flooring grade (APA approved) and installed according to manufacturer specifications. Irregularities, imperfections and joints are required to be properly patched and prepared. The use of a primer on the substrate will improve bond strength of the patch.

3.1. Treated Wood
Wood that is chemically treated to alter properties relating to outdoor exposure or flame resistance is not a suitable substrate for direct glue-down applications. Floor covering adhesives would be subject to chemical degradation when applied to these surfaces.

4. Metal
It is required that metal floors create a smooth, even plane, and be free of grease, oil, soil and rust.

5. Raised Access Flooring
It is required that raised access flooring be structurally sound, flat and properly secured.
For carpet tile installation, tile seams should be offset from access panel seams unless
otherwise specified.

6. Carpet over Carpet
Refer to carpet manufacturer for guidance before installation.

TYPES OF FLOOR CONTINUED...

7. Resilient

Installing carpet over resilient flooring may be acceptable as long as the resilient flooring is securely bonded to the substrate and all waxes, sealers, floor finishes and other foreign materials have been removed. It is not recommended to install over floating, perimeter bonded or cushion-backed sheet goods.

NOTE: Some sheet vinyl, resilient tile and cut-back asphalt-based adhesive may contain asbestos and/or crystalline silica. Recommended work practices prohibit sanding, dry scraping, bead-blasting or mechanically pulverizing resilient flooring, backing or lining felt.

Do not use powered devices that create asbestos dust when removing "cut-back" or asphalt-based adhesives. Removal procedures must comply with federal, state and local government agency regulations covering the removal and disposal of asbestos-containing materials (ACM).

8. Radiant Heat Floor

Radiant-heated floors require special consideration in the selection of carpet, carpet cushion, installation methods and adhesive.

Unless absolutely certain about the location and depth of heating components, use adhesive to attach tack strip and transitions.

The maximum surface temperature of radiant-heated substrates should not exceed 85ºF/29ºC.

Refer to the Radiant Professionals Alliance for additional information.

9. Terrazzo, Ceramic, Marble, Slate and Other Nonporous Surfaces

Remove surface finishes and abrade flooring surfaces to ensure adhesion. Grout lines must be filled and flush with flooring material surface. Ceramic or other surfaces may require the use of a primer to ensure proper adhesion. Slate and brick surfaces may be too rough and uneven for most installations and may require the use of a self-leveler or smoothing before installing carpet. Attention must be given to the "open time" requirements of the adhesive manufacturer when adhering carpet to these surfaces.

TYPES OF FLOOR CONTINUED...

10. Asphalt
For approved flooring materials, it is required that asphalt surfaces be clean, dry, free from excessive oil and grease, and in good condition. Cure new asphalt for at least 90 days, or longer, depending upon weather conditions.

11. Painted Surfaces
Painted surfaces may be suitable for adhesive application; however, bond tests are recommended. Glossy surfaces must be abraded prior to installation. Contact the adhesive manufacturer for requirements.

12. Primers
Using primers on floor surfaces generally is not required except for sanded wood sheet products and dusty, porous or acoustical concrete surfaces. Primers are not designed to reduce moisture vapor emissions and should not be used for that purpose. They should be compatible with adhesives, which can only be applied after the primer is cured. Where lightweight or acoustical concrete substrate is present, refer to manufacturer requirements for the proper installation procedure to use before the carpet is installed.
NOTE: Substrate primers are recommended by some manufacturers for specific carpet installations to enhance adhesion.

FLOOR PREPARATION

Floors are required to be structurally sound and free of foreign substances that may compromise the carpet or its installation.

The subfloor must be rigid to stop modular carpet from cupping.

Old carpet, under felt, loose laid vinyl, cushion backed vinyl and any old adhesive must be removed and floor scraped clean.

- **A Clean floor**

Floor should be free from all dirt, dust and harmful materials. Before applying adhesive sweep/mop and vacuum the subfloor to remove all dust. Patching compounds are required to be suitable for the intended application. Select polymer-fortified patching compounds according to the carpet manufacturer's instructions. (Refer to current version of ASTM E1155).

NOTE: Patched areas may be porous and highly alkaline, which will prevent adequate adhesive bond. For best results, prime patched areas. Consult patch manufacturer for primer recommendations and compatibility with adhesives.

- **A Dry floor**

All floors must be dry. New concrete floors must be checked for moisture content as per Standard Carpets recommendations. Moisture content must not exceed levels as indicated in Planning >Testing section of this document. If the moisture content is above the recommended maximum readings **STOP** and **DO NOT PROCEED** with the installation. Seek further advice from the contractor before proceeding.

- **A Low pH floor**

The subfloor should have an alkalinity level of between pH7 & pH9 to be suitable for carpet installation. Should the pH level be outside this range **STOP** and **DO NOT PROCEED** with the installation. Seek further advice from the contractor before proceeding.

CARPET INSTALLATION

1.Product Acclimation
It is recommended that carpet and installation materials be allowed to acclimate in the installation area for a minimum of 24 hours at a temperature of 65-95ºF (18-35ºC). Carpet must be adequately protected from soil, dust, moisture and other contaminants. Follow manufacturer's instructions for acclimation.

2. Layout
To ensure straight square installations, apply at least two perpendicular chalk lines onto the substrate (at a 90-degree angle to each other). These chalk lines should extend the entire length and width of the area to be covered. A laser line can be also utilized for this purpose. The location and intersection point of the chalk lines should be determined to achieve the design intent and reduce waste.
NOTE: The intersection point mentioned above may or may not be in the center of a room in order to achieve the design intent.

3. General
In setting up, a point in the room shall be determined from which modular carpet can be laid to ensure that they are parallel to the longest wall.

CARPET INSTALLATION CONTINUED...

3.1. Tiles Installation

Directional arrows are printed on the back of all tiles.

Determine the 'arrow direction' for the installation and make sure all tiles are installed in the same direction, unless chequerboard, ashlar or brick pattern is required. (see diagrams below).

Diagram 1

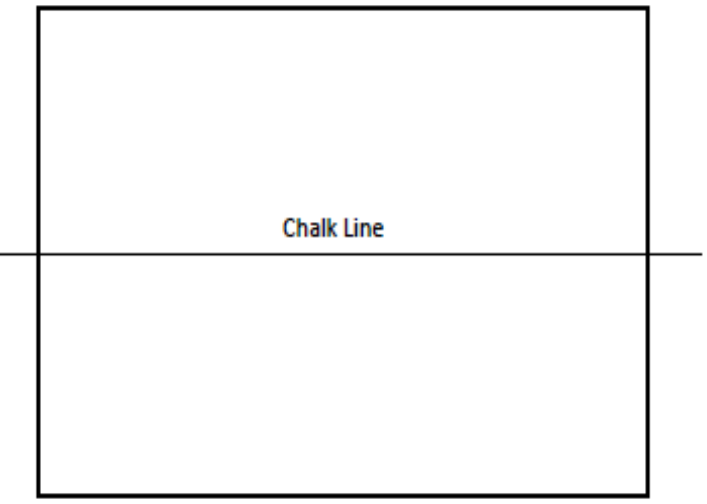
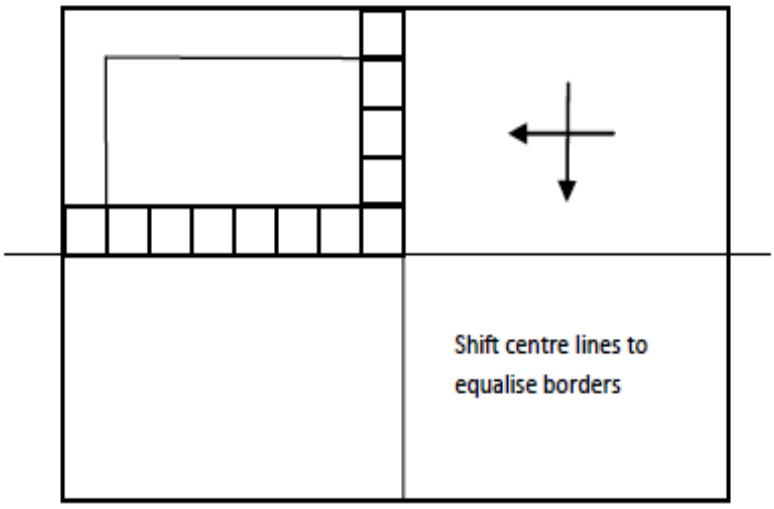


Diagram 2



Start from the intersection point in the center of the floor and install the first line of tiles along the center line. Install the second line of tiles along the perpendicular center line. Keep all tiles exactly on the chalk lines. Fit the tiles snugly next to each other. **Do not force the tiles**. Press the tiles firmly onto the floor when properly positioned. Tiles can be removed from the floor at any time for realignment, extra care should be taken when installing into permanent adhesive.

CARPET INSTALLATION CONTINUED...

Joints between tiles are accentuated if the surface pile is trapped between adjacent tiles. This can be avoided by carefully pushing back the surface pile and tightly butting the tiles to one another, but avoid undue pressure, which might cause tiles to buckle or tent.

Take care making sure the edge of the tiles are unable to slide under the skirting boards or other perimeter detail, if this can occur, then they should be fixed to the subfloor using adhesive.

Where tiles are used in conjunction with chair castors some flattening of the pile will occur and it is therefore essential to use keyhole mats to protect the surface pile of the carpet.

Castor cups should be used under heavy point loads.

It is essential to have a good barrier zone to help protect your tiles. Including entrance areas, barrier zones should be greater than 3 linear meters.
Continue to install the tiles in a stair step or pyramid pattern starting from the intersection point. Check to make sure the tiles are properly aligned at the edges during installation.
Install border tiles by placing a tile face down exactly on top of the last full line of field tile, keep the arrows pointed in the same direction. This is the cut tile. Take another full tile and butt it against the wall allowing it to fall on top of the cut tile. This is the reference tile. Score a line on the back of the cut tile using the edge of the reference tile as a guide. Cut the cut tile along the reference line. Do not cut through the field tile. Install the cut tile with the cut edge along the wall. Doorways and other permanent objects can be fitted using this method, by making a pattern or by measuring techniques.
During manufacture and transportation, carpet tiles have been subject to a certain amount of crushing. If after laying the surface appears to be flattened, a thorough vacuuming and normal wear will eliminate this after a few days.

CARPET INSTALLATION CONTINUED...

Diagram 3

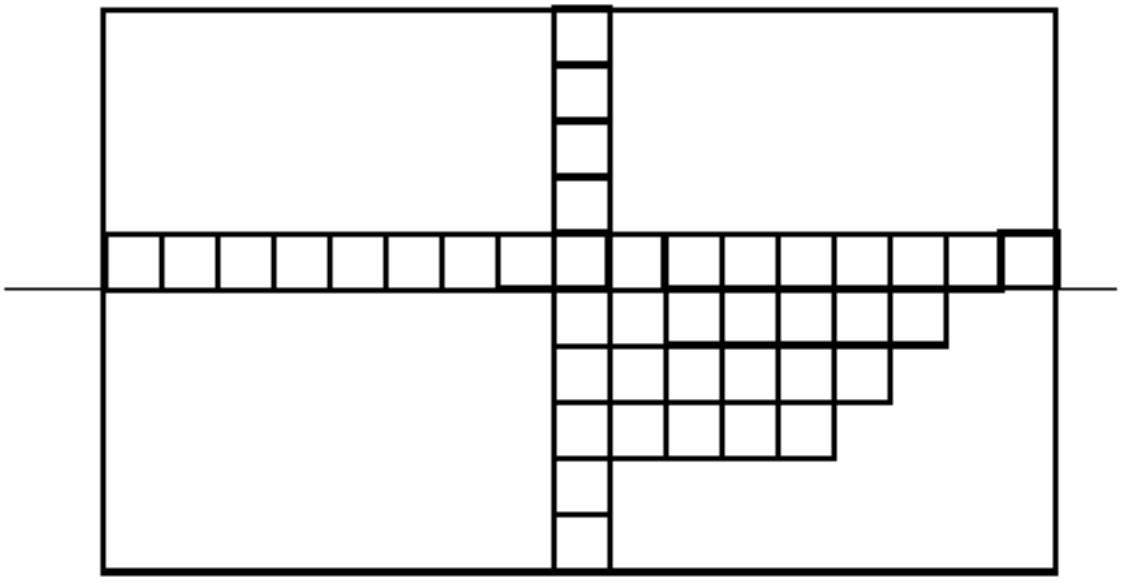
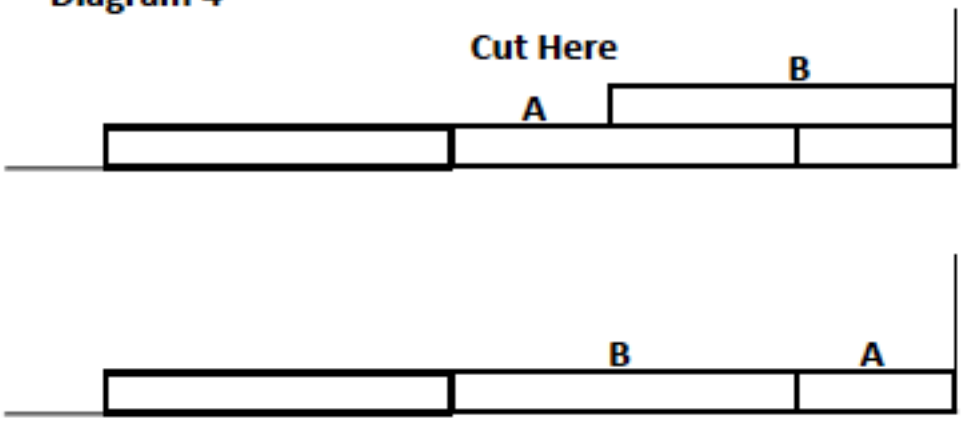
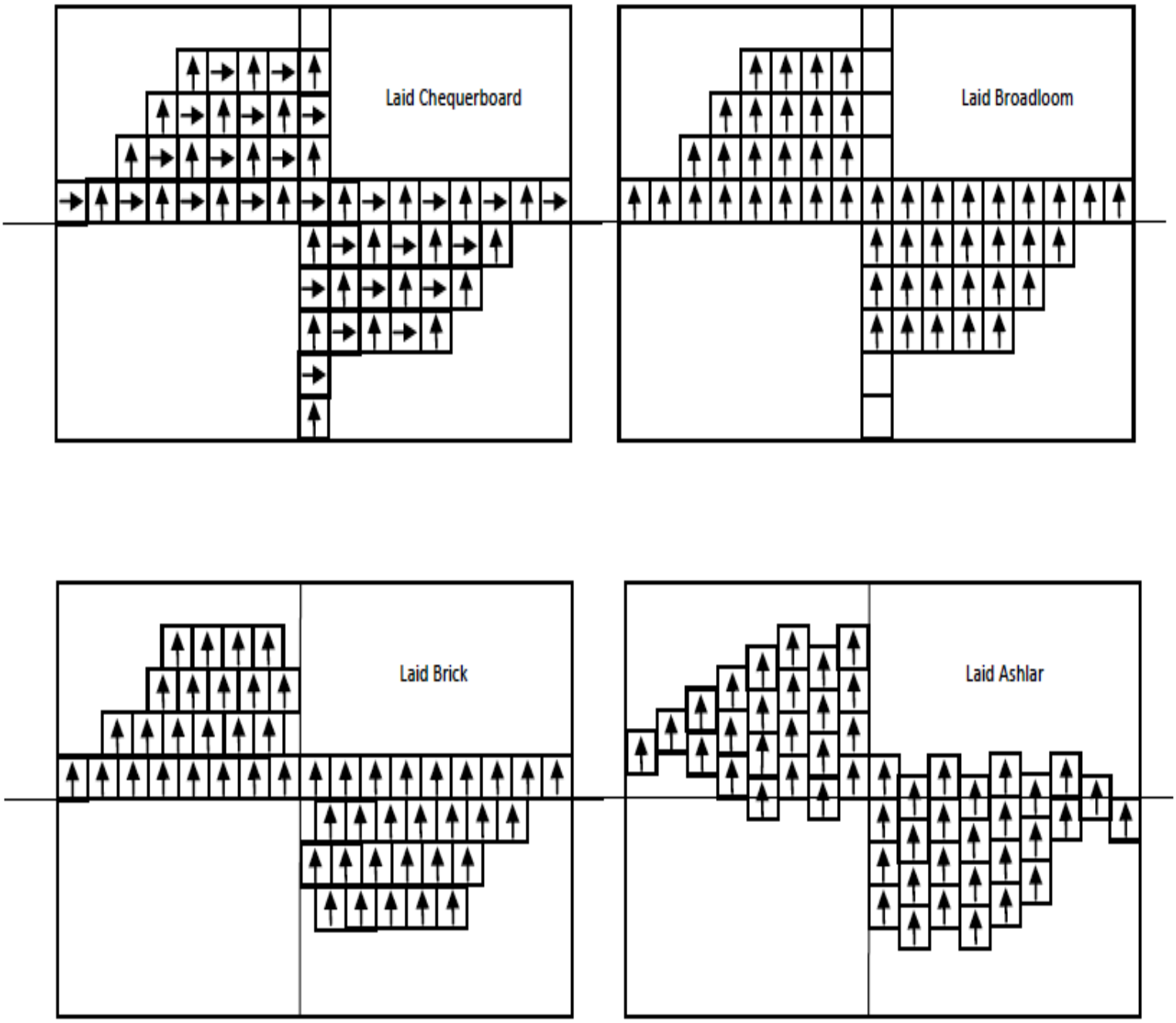


Diagram 4



CARPET INSTALLATION CONTINUED...

Layouts

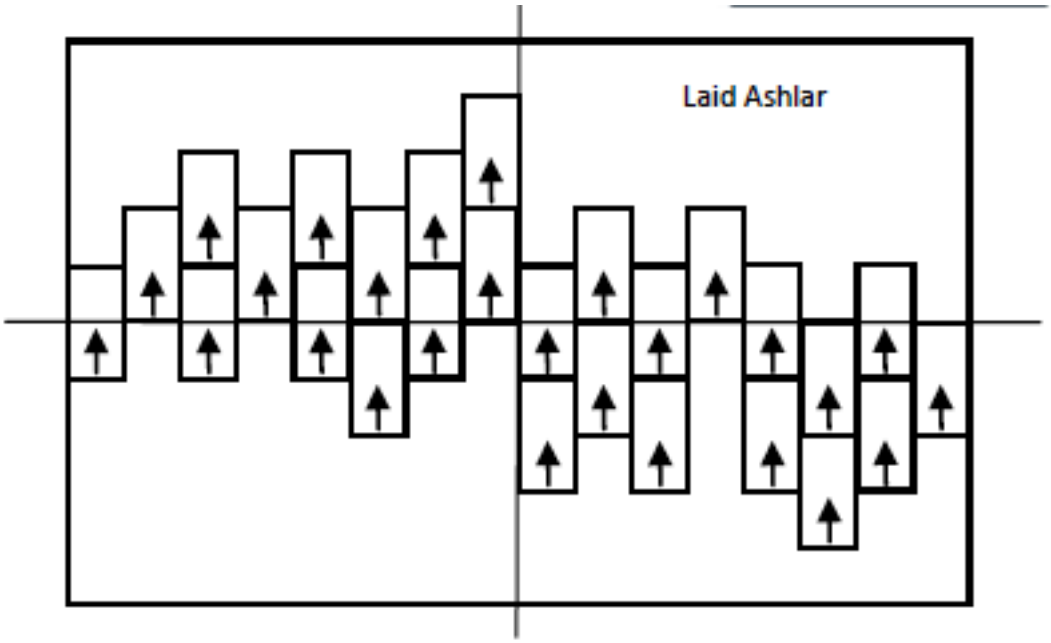


CARPET INSTALLATION CONTINUED...

3.2. Narrow Planks Installation

Standard Carpets narrow planks can be installed either Ashlar or Herringbone.

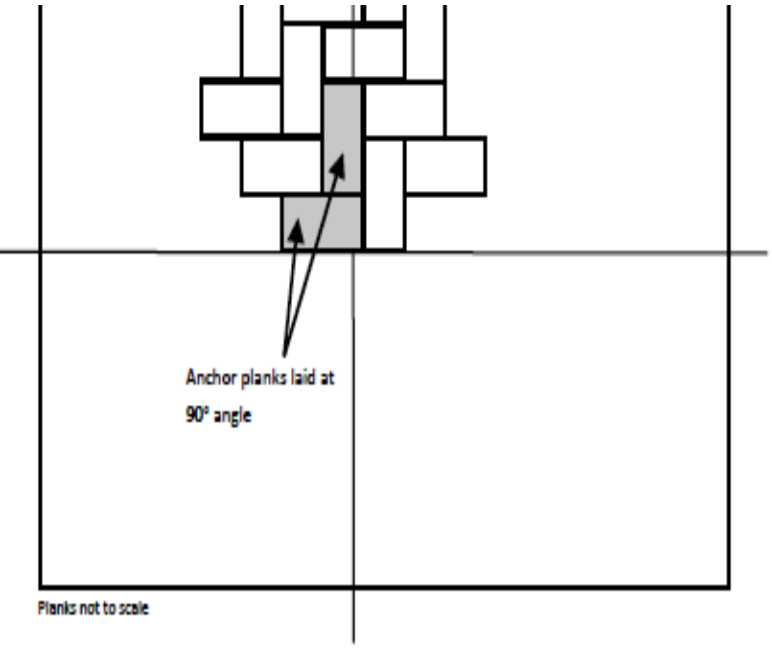
-Ashlar Installation:
For Ashlar the same planning and installation practices apply as for standard sized carpet tiles. Ashlar is created by offsetting the front and back tile joints by half a tile.

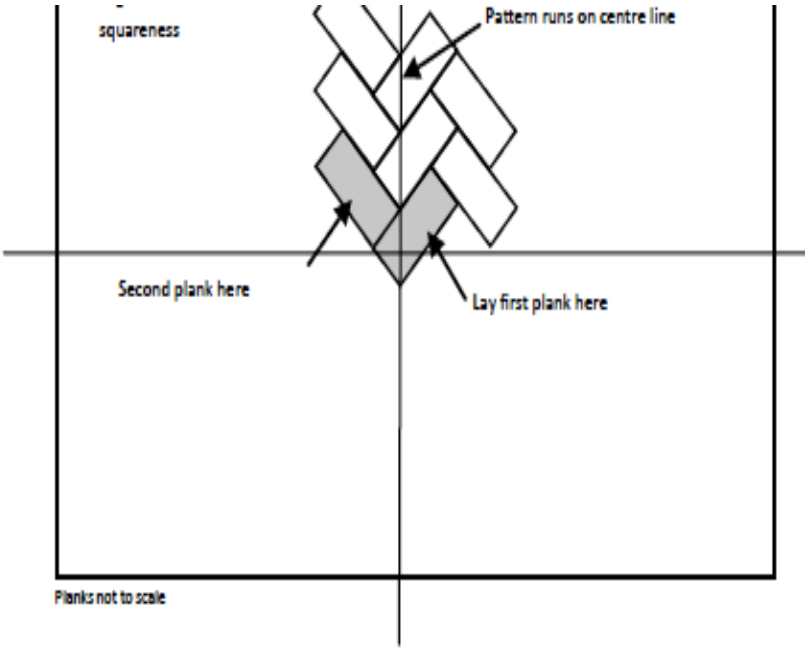


CARPET INSTALLATION CONTINUED...

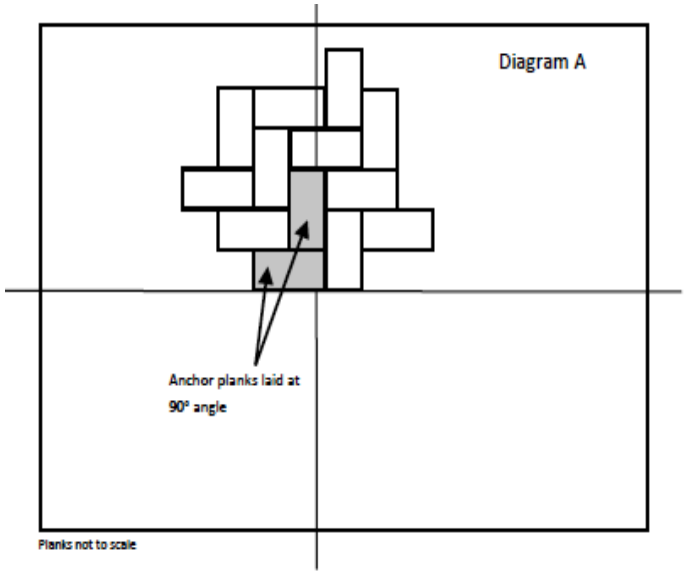
-Herringbone Installation:

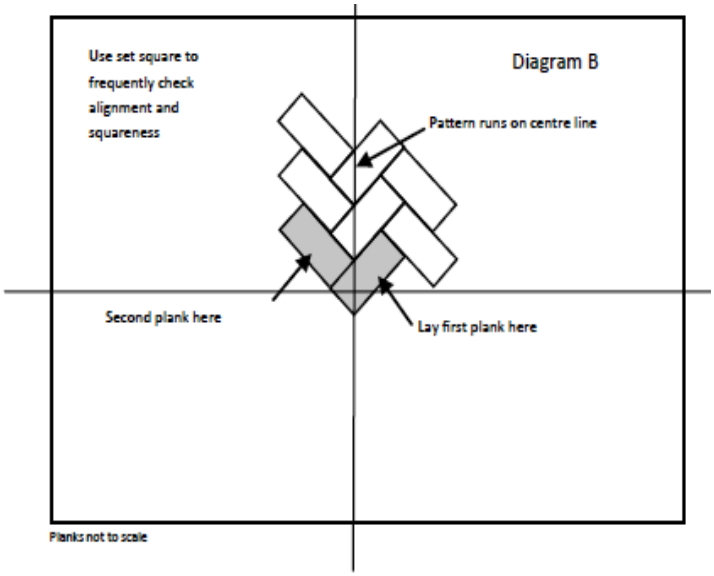
For Herringbone it is possible to position the planks in one or two ways which require a different level of planning. Herringbone is created by laying the planks in an L pattern but the starting point could be at a 90° angle (Diagram A) or a 45° angle (Diagram B).





CARPET INSTALLATION CONTINUED...





For diagram A, the planks can be laid in to the right angle created by the chalk lines. When building out from these anchor planks in an L pattern frequently use the set square to ensure precise alignment and squareness.

Diagram B is more complex and requires additional working, diagonal lines. Establish the center focal point for the desired pattern and snap the center and base chalk lines. Use the set square to check the chalk lines are perpendicular.

The center line follows the direction of the pattern and to ensure the pattern remains central it may be necessary to measure and draw a working line parallel to the center line.

Dissect the right angles where the working line and baseline meets and chalk diagonal, 45° lines. Use the set square to ensure these lines are square and then lay the first plank along the diagonal line starting at the intersection of the working line and baseline.

Please the next plank to create the L shaped pattern and using the set square ensure precise alignment.

These two anchor planks determine the squareness of the entire installation. Continue with this pattern frequently using the set square to ensure precise alignment.

CARPET INSTALLATION

4. Adhesive Application
Generally, a thin film of pressure-sensitive adhesive is applied and allowed to completely dry. The design of the adhesive is to prevent lateral movement of carpet tiles and for easy removal/replacement. Due to varying carpet tile backing, adhesive recommendations will differ. Follow manufacturer's recommendations.
NOTE: In order to prevent adhesion issues or contamination, old adhesive residue must be removed and encapsulated prior to application of new adhesive.

5. Tile Joints
Tile in the completed installation should be tight but not compressed. To insure proper spacing when installing carpet tile, measure the distance covered by 10 tiles installed on the floor with no visible gaps, peaks or overlaps. The measurement should be equal to 10 times the tile size +/- 1/4 inch unless otherwise stated in the manufacturer specifications.
This measurement is an indication of correct placement of tiles to prevent compression or gapping between tiles. Take care not to trap yarn between tiles.

6. Rolling
Refer to manufacturer recommendation for roller weight. Rolling, if required, should be performed to press the tile into the adhesive.

7. Pre-applied Adhesive Systems ("peel-and-stick")
Pressure sensitive adhesives sometimes are applied to attached-cushion backings during manufacturing. Backings of this type have special floor preparation requirements. Consult the carpet manufacturer for recommended installation procedures and the use of primers, if needed.

CARPET ON STAIRS

The following section covers proper procedures for installing carpet on stairs.

7.1 Preparation

It is required that the stair tread, riser and stair nose should be clean, dry and structurally sound. The stair nose return should be rounded 3/4 to 1 inch (19 to 25 mm) to prevent sharp stair edges from cutting carpet and/or cushion, and to provide proper carpet contact for adhesive installations. When carpet is installed over a separate cushion, extend the cushion over the stair nose.

7.2 Stretch-in Installation

Tack strip is to be installed on each tread. It is required that pins on the tread point toward the riser. On a waterfall-type stair installation, tack strip is to be installed on risers also. Pins on risers point down to the tread. It is required that the gully between strips be slightly less than double the carpet thickness. Where a turned finish is desired, tack strip and cushion are about 1½ inches (38 mm) less than the carpet width, to allow for a “turn- and tack” 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 contoured technique, tack strip is not used on riser.

NOTE: When staples are used in upholstering carpet on stairs, take care to separate pile yarns to avoid trapping yarns, resulting in visible distortion. If the edges are exposed, they must be edge sealed. Upholstery work needs to have no raw edges exposed. Any seams or joints must be sealed. Carpet seams need to be split in the direction of the balusters/spindles.

CARPET ON STAIRS CONTINUED...

7.3 Glue-down Installation

Install carpet on stair treads and risers using recommended adhesive. Stairs without a return (nose) can be installed as one piece over the tread and riser. It is required that on stairs with a return, carpet be cut and installed with the tread and riser being separate pieces.

7.4 Carpet Direction

It is recommended that machine direction of the carpet be installed in the length direction of the stairs.

NOTE: Most manufacturers recommend carpet pile direction run down the stairs.

TOOLS & MATERIALS

Table I

Tools

A.	Tape Measure (Metal)	L.	Seaming Tools
1.	25 ft. (7.6 m)	1.	Awl / Row Runner
2.	50 ft. (15.2 m)	2.	Cushion Back Cutter
3.	100 ft. (30.5 m)	3.	Loop Pile Cutter
B.	**Straight Edge**	4.	Carpet Seam Roller (Flat and Paddle)
1.	Rigid	5.	Wood / Non-Conductive Weight to follow Hot Melt Seaming Iron
C.	**Chalk Line**	6.	Stay Nails
1.	White Chalk	**M.**	**Seaming Device**
2.	Red or Blue (Substrate Only)	1.	Hot Melt Seaming Iron and Shield (3 inch or 6 inch)
D.	**Knives and Cutters**	2.	RF (Radio Frequency) Seaming Unit
1.	Carpet Knife	**N.**	**Miscellaneous**
2.	Utility Knife	1.	Base Shoe Lifter
3.	Wall Trimmer	2.	Drive Down Bar
4.	Carpet Shears	3.	Stair Tool
5.	Nap Shears (Duck Bills)	4.	Pliers
6.	Tin Shears	5.	Extension Cord and Adapter
7.	Tack Strip Cutter	6.	Hammer Drill / Mixing Paddle
E.	**Hammers and Mallets**	7.	Miter Box
1.	16 to 20 oz. Hammer	8.	Hacksaw
2.	White Rubber Mallet	9.	Door Pin Remover
F.	**Staplers / Tackers**	10.	First Aid Supplies
1.	Electric Stapler	11.	Carpenter Square
2.	Hammer Tacker	12.	Pencil and Note Pad
G.	**Screwdrivers**	13.	Chalk Stick
1.	Phillips	14.	Marking Pin
2.	Standard	15.	Thimble
H.	**Trowels**	16.	Curved Needle and Thread
1.	See Table II – Trowel Size Minimum Guidelines	17.	Vacuum Cleaner / Broom

TOOLS & MATERIALS CONTINUED...

Table I

I.	**Rollers**	18.	Dry Lines
1	35 lb (16 kg)	19.	Knee Pads
2	50 lb (23 kg)		
3	75 lb (34 kg)		
J.	**Power Stretcher**		
1.	Junior		
2.	Senior		
3.	Carpet Spreader		
K.	**Positioning Tools**		
1.	Adjustable Knee Kicker		
2.	Double Headed Mini Stretcher		

Materials

A.	**Metal and Vinyl Moldings**	**B.**	**Seaming Tape**
1.	Flat Metal	1.	Hot Melt
2.	Cap Molding (T-track)	2.	Latex
3.	Stair Nosing	**C.**	**Seam Sealer**
4.	Accent Molding	1.	Liquid Seam Sealer
5.	Tap-Down (Gripper Bar or Flat)	2.	Thermoplastic sticks and applicator
6.	Access Panel Molding	**D.**	**Tack Strip**
7.	Z-Bar	1.	See Table III – Tack Strip for Various Widths

TROWEL SIZE MINIMUM GUIDELINES

Table II

Floor Covering / Substrate	Applicator Size	Approx. Spread Rate feet² / gal.	Approx. Spread Rate yards² / gal.
Carpet tile	3/8" Nap Paint Roller (9.5mm) 3/4" Nap Paint Roller (19.0mm)	350 – 400 270 – 360	35 – 45 30 – 40

Note: Above dimensions are given as width x depth x spacing. Spread rates vary with texture and porosity of the substrate. Trowels should be held at a consistent 45–60° angle to apply adhesive. Examine notches regularly for wear.

ADHESIVE TYPES/DEFINATIONS

TableIII

Adhesives – Common Types Used in Carpet Installation	
A.	**Carpet Floor Adhesives**
1.	**Latex Adhesive:** Common name for adhesives used to install broadloom carpets, excluding those with vinyl backing, either directly to a substrate or over underlayment and cushion. Refer to carpet manufacturer for adhesive grade recommendation for specific backings and uses.
2.	**Multi-purpose Adhesive:** A latex adhesive designated for use with varying carpet types as well as non-vinyl backed (mineral-felt backed) resilient sheet goods.
3.	**Vinyl-Back Carpet Adhesive:** Adhesive specifically formulated for permanent installation of vinyl back carpet.
4.	**Modular-Carpet Adhesive:** Pressure sensitive type adhesive for releasable installation of modular carpets. Note: Always consult manufacturer for proper type adhesive.
5.	**Outdoor Carpet Adhesive:** Water resistant adhesive for installations of carpet designed for outdoor use. Refer to adhesive manufacturer for adhesive grade recommendation for specific backings.
6.	**Polyurethane Carpet Adhesive:** For installing specific polyurethane backings. Refer to adhesive manufacturer.
7.	**Contact Adhesive:** Used for bonding various carpet edge moldings to a substrate. It can be used for adhering carpet to difficult or irregular surfaces.
B.	**Carpet Seaming Adhesives (Seam Sealer)**
1.	**Vinyl-back Seam Adhesive:** Solvent-based (chemical weld) or solvent-free (mechanical bond).
2.	**Latex Seam Adhesive:** For applying seaming tapes, reinforcing sewn seams, sealing trimmed edges prior to “hot melt” seaming, securing binding, etc.
3.	**Hot Melt Seam Adhesive:** A thermoplastic adhesive used for adhesive or stretch- in applications.

DEW POINT

Table V

Ambient Air Temperature in Degrees Fahrenheit

Relative Humidity	40°F	45°F	50°F	55°F	60°F	65°F	70°F	75°F	80°F	85°F	90°F
90%	37	42	46	52	57	62	67	72	77	81	87
85%	35	40	45	50	55	60	65	70	75	80	84
80%	34	39	44	49	54	59	63	68	73	78	82
75%	32	37	42	47	52	57	62	66	71	76	80
70%	31	35	40	45	50	55	60	64	68	74	78
65%	30	33	38	43	47	53	57	62	66	72	76
60%	27	32	36	40	45	50	55	60	64	69	73
55%	26	30	34	38	43	48	53	58	61	67	70
50%		28	32	36	40	45	50	55	59	64	67
45%		26	30	33	37	42	47	52	56	61	64
40%		21	27	32	35	40	43	49	52	58	61
35%			24	28	31	36	40	45	48	54	57
30%				25	28	32	36	41	44	50	52

SURFACE TEMPERATURE AT WHICH CONDENSATION OCCURS

HOW TO USE THIS CHART: If the air temperature is 80°F and the RH is 65%, the dew point is 66°F. No coating should be applied unless the surface temperature of the slab is 71°F or higher.

DEW POINT: Temperature at which moisture will condense on the surface of an object. No coatings should be applied unless surface of the concrete slab is a minimum of 5 degrees above this point. Ambient temperature must be maintained during curing, or can be falling, but never rising.

RELATIVE HUMIDITY (RH): The amount of water vapor in a mixture of air and water vapor. It is defined as the ratio of the partial pressure of water vapor in an air-water mixture to the saturated vapor pressure of water at a prescribed temperature.

AMBIENT AIR TEMPERATURE: The ambient temperature is a non-specific phrase used to describe the outside temperature. When taking the temperature with a thermometer, you are getting a general idea of the temperature of the surrounding air without considering the humidity or wind in the air.


Standard
CARPETS