

Finished Floor Goods Attachment

Methods

For Rapid Floor Systems Underlayments

Rapid Floor®, Rapid Floor Plus®, Rapid Floor Ultra®, Rapid Radiant®, Level-Right®, Level-Right® FS-10, Level Right PLUS® and Commercial Topping Floor Underlayments are smooth and dense enough to receive all types of glue-down finished floor materials.

Before, during and after installation of Rapid Floor Systems underlayments, building interior shall be enclosed and maintained at a temperature above 50 F (10 C) until structure and subfloor temperatures are stabilized. Provide continuous ventilation and adequate heat to remove moisture rapidly from the area until the underlayment is dry. Provide mechanical ventilation if necessary. Under the above conditions, a ¾" (19 mm) thick underlayment is usually dry in 5 to 7

To ensure the most effective bonding possible, two steps are recommended.

1 - Check for Dryness

Check for dryness using the recommended procedure of taping a 24" x 24" (609 mm x 609 mm) section of plastic to the surface of the underlayment; or lay a flat, 24" x 24" (609 mm x 609 mm), high-density, smooth rubber mat weighted down on the underlayment surface. If no condensation or darkening of the slab occurs in 48 to 72 hours, the underlayment is considered dry and ready for the following steps. Perform additional tests if necessary. If any gouges or nicks occur from construction traffic, contact your Rapid Floor dealer for repair procedures.

2a - Apply Maxxon Overspray

Porosity of the floor is a prime factor in the drying rate of adhesives. This porosity factor may reduce the effective adhesive open time. An application of Maxxon Overspray will minimize the porosity factor. Before priming, test the underlayment for dryness. The underlayment must be fully dry before priming.

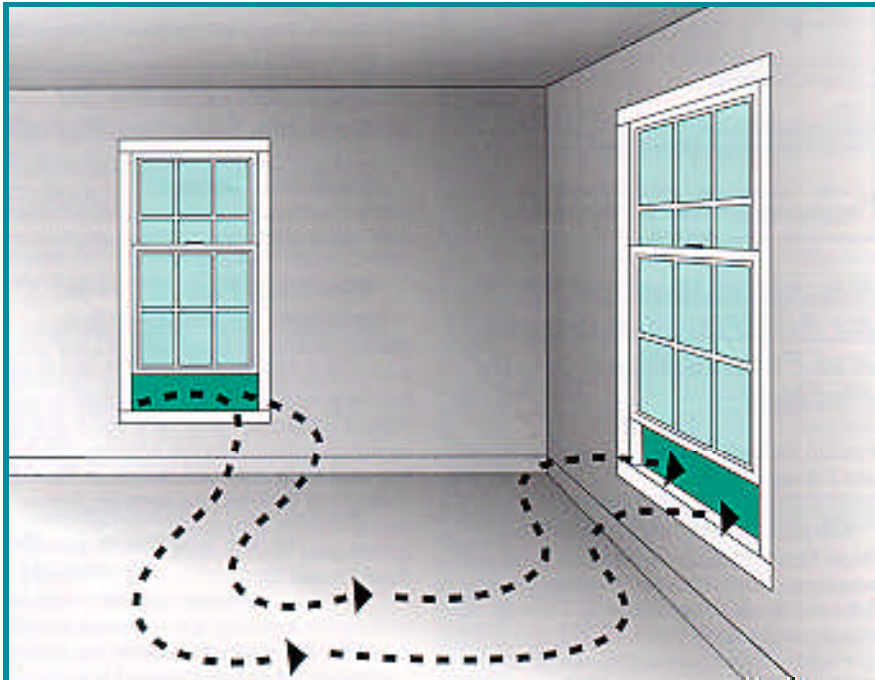
Dilution Rate

Maxxon Overspray -
4 parts water to 1 part Overspray

After diluting per the above rate, spray or roll the Maxxon Overspray at a rate of 300 sq. ft. (27.87 m²) per gallon of mix. Make certain surface to receive the Overspray is free to mud, oil, grease and other contaminants. For maximum results, the Overspray is applied about 1-2 hours prior to adhesive application. Latex adhesives will not achieve maximum bond until moisture has dissipated. (Note: Level-Right FS-10 and Level-Right Plus do not need to be primed).

2b - Maxxon Acrylic Sealer or Maxxon Overspray (optional)

Occasionally the underlayment surface needs to be left open for long period of time during demountable partition construction and office leasing. The Maxxon Acrylic Sealer or Maxxon Overspray have been developed to act as a temporary wearing surface during this time. After Step 1 is completed, dilute Acrylic Sealer or Overspray 4:1 by adding 4 gallons (15.1 L) of water to 1 gallon (3.8 L) of Acrylic Sealer or Overspray. Spray or roll this dilution at a rate of 200 sq. ft. (18.58 m²) per gallon of mix.



Important

- 1. Maxxon Overspray and Acrylic Sealer are non-flammable. Do not freeze. Do not ingest. Overspray or Acrylic Sealer equipment may be cleaned with soap and water.**
- 2. Where floor goods manufacturers require special adhesive or installation systems, their requirements supersede these recommendations. In this situation, contact your Rapid Floor applicator to determine the compatibility of products.**
- 3. Finish floor goods may be damaged by impact, rolling or static loads (stileto heels, for example) that exceed the flooring manufacturer's recommendations. Rapid Floor will not accept responsibility for damage resulting from these conditions. Warranties for these conditions rest with the floor covering manufacturer.**

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Recommended adhesives are included in this brochure. Perform a sample installation to test bond compatibility.

Recommendations for Attaching Sheet Vinyl and Vinyl Composition Tiles

Prepare the underlayment according to steps 1 and 2 on the cover of this brochure. Unless stated otherwise, Step 2 (priming) always recommended. If, however a floor goods manufacturer recommends other procedures and products, their requirements supersede these recommendations.

Installations Over Radiant Floor Heating

The vinyl industry recommends that the floor surface temperature never exceed 85 F (29 C). Floor temperature can affect open time and working time of adhesive. Lower the floor temperature during adhesive and tile installation.

Solarbright All-Vinyl Tile

Prepare the underlayment according to Steps 1 and 2 on page 1. Apply tile according to Solarbrite Adhesive Program.

Recommendations for Attaching Ceramic, Quarry and Marble Tile

Level-Right Cementitious Underlayments

For Level-Right, Level-Right FS-10 and Level -Right Plus Self-Leveling Floor Underlayments, ceramic, quarry or marble tile can be thin-set 2-4 hours after the pour, or as soon as the underlayment can be walked on.

Level-Right Cementitious Underlayments

For all Rapid Floor gypsum floor underlayments, prepare that underlayment according to Steps 1 and 2 on the cover of this brochure.

Rapid Floor Systems recommends installing one of the following anti-fracture membranes between the underlayments and tile. The anti-fracture membrane help eliminate tile cracking caused by structural movement and acts as a waterproofing membrane.

See Detail A

The Rapid Floor underlayment must be dry before the installation of these membranes unless otherwise stated by the membrane manufacture.

Follow the respective manufacturer's recommendations for installation of the membrane and of the latex modified thin set.

Solarbright All-Vinyl Tile

If expansion joints are needed, follow the procedures and installation requirements of specifications EJ171 in the Handbook for Ceramic Tile Installation. This handbook is published by the Tile Council of America. A copy is part of the Sweet's Catalog File under section 09300/TIL, or call the TCA at 1-864-646-8543, or view their website at www.tileusa.com

Anti-Fracture & Waterproof Membrane Manufacturers

Badger Cork (Stress Cork)	(800) 225-2675
Bostik, Inc. (Hydroment Ultra-Set) (Natural Cork)	(800) 726-7845
Carlisle Waterproofing (CCW Under-Tile Membrane)	(800) 338-8701
C-Cure (Uniflex) (UltraCure)	(800) 895-2874
Composite Corp. (Composeal Gold)	(800) 221-1056
Flextile (WP-980 Waterproof Anti-Fracture Membrane)	(800) 699-3623
Laticrete International (Laticrete 9235 Membrane)	(800) 243-4788 (203) 393-0010
Mapei (PRP-M19) (PRP315) (Planicrete W)	(800) 992-6273
Mer-Kote Products (Mer-Krete BFP) (Mer-Krete Hydro-Guard 2000)	(800) 851-6303 (213) 775-2461
NAC Products (EBC Membrane) (Strate-Flex)	(330) 644-3117
Noble Company (Nobleseal TS)	(800) 678-6625 (616) 842-7844
Pasco (Baseline Anti-Fracture & Waterproof Membrane)	(800) 421-2053 (800) 540-1136 (in California)
Protecto Wrap (AFM Anti-Fracture Membrane)	(800) 759-9727
Schluter Systems, Inc. (Schluter Ditra Matting)	(800) 361-3127
TEC (TA 329 Crack Isolation) (TA 324 Triple Flex Waterproofing & Crack Isolation Membrane)	(800) 323-7407

Note: Contact the manufacturer of the anti-fracture membrane for recommendations.

Recommendations for Attaching Laminated and Parquet Wood Flooring

Prepare the underlayment according to Steps 1 and 2 on page 1.

Glue-Down Installations

Rapid-Floor Systems recommends these adhesives: Bostik Ultra-Set Hardwood Adhesive, Bostik's Best Adhesive, Bostik's Fast-tac or Franklin PS 611, LS 711, 811 or 911 by Franklin Chemical

Adhesive	Primer
Bostik Ultra-Set Hardwood Adhesive	Hydroment #425 Multi-Purpose Acrylic Admixture
Bostik Best Adhesive	Hydroment \$425 Multi-Purpose Acrylic Admixture
Franklin PS611	Franklin Concrete Primer*
Franklin LS711	Franklin Concrete Primer*
Franklin 811	Franklin Concrete Primer*
Franklin 911	Franklin Concrete Primer*

* This is the preferred primer. However, Maxxon Overspray is an acceptable alternative.

Industries. Other adhesives may also be compatible. Before applying any adhesive, make sure the underlayment is clean and has passed a dryness test. Apply primers and adhesives according to the manufacturer's instructions. If you have any questions about the compatibility of primers and adhesives perform a small test patch installation. Let the test area set for 72 hours before removing the flooring.

Glue-Down Installations Over Radiant Floor Heating

Glue-Down Laminated Hardwood
Glue-down laminated hardwood systems tend to be the most stable flooring systems for use with the most stable flooring systems for use with radiant heat. The cross-plies of the flooring boards make the flooring very stable and resistant to excessive expansion and contraction. Many wood flooring manufacturers produce pre-finished, square-edge laminated hardwood floors that are indistinguishable from nail-down systems. Since laminated systems are generally thinner than nail-down system, the radiant system performance is improved due to lower resistance from the floor covering.

See Detail B

Mechanical Attachment of Laminated and Parquet Wood Flooring

Follow the manufacturer's recommendations for installation over a cementitious underlayment.

Recommendations for Attaching Floating Floors

Follow the manufacturer's recommendations for installation over a cementitious underlayment.

Floating Floors over Radiant Floor Heating

Flooring boards are glued edge-to-edge and floated on a 1/8" (3 mm) foam pad. Since the flooring is laminated, it is a very stable system. Radiant system performance is about as good as with glue-down laminate systems. The foam pad adds some additional resistance, but the floating floor laminates are generally thinner than glue-down laminates so the net performance effect is similar.

See Detail C

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Recommendations for Attaching Sheet Vinyl and Vinyl Composition Tiles

Prepare the underlayment according to Steps 1 and 2 on the cover of this brochure.

Mechanical Attachment

Attach solid wood flooring according to the instructions published by the National Oak Flooring Manufacturers Association, Inc. (NOFMA). Call NOFMA at 901-526-5016, or view their website at www.nofma.org.

Mechanical Attachment Over Radiant Floor Heating

Nail-Down Sleeper System

With this system, 2" x 4" (50 mm x 101 mm) sleepers are installed directly on the subfloor and tubing is installed between the sleepers. The spaces are then filled with Rapid Radiant to provide a thermal mass. Once the Rapid Radiant has dried, a vapor barrier is laid down and the flooring boards are nailed directly into the nailing sleepers that were installed on the subfloor. The advantage of the system is the flooring creates minimal insulation above the heating system. The disadvantage is that the flooring can only be nailed to a sleeper which may not provide enough fastening.

See Detail D

Single Layer Nail-Down System

The 2" x 4" (50 mm x 101 mm) sleepers, radiant system tubing and Rapid Radiant are installed as above. Once the Rapid Radiant has dried, a vapor barrier is laid down and ¾" (19 mm) ACX plywood is nailed to the sleepers. The wood flooring is then installed in a conventional fashion to the plywood. Care must be taken to prevent nails from penetrating into other Rapid Radiant and puncturing a tube.

See Detail E

Dual Layer Nail-Down System

The system is considered a floating floor. The radiant system tubing and Rapid Radiant are installed conventionally. Once the Rapid Radiant is dry, place a vapor barrier and lay ½" (13 mm) ACX plywood on top of other Rapid Radiant, alternating directions. Spread a thick layer of adhesive and screw a top layer of ½" (13 mm) ACX plywood to the previous layer. Leave 1/16" to 1/8" (1.5 mm to 3 mm) gaps between all sheets and put the ACX side down between all sheets and put the ACX side down on the bottom layer and up on the top layer. The wood flooring is then installed in a conventional fashion to the plywood. Care must be taken to prevent nails from penetrating into the Rapid Radiant and puncturing a tube.

See Detail F & F2

When laminated, parquet or solid wood floors are installed over radiant heating systems, the maximum floor temperature should never exceed 85 F (29 C).

Recommendations for Attaching Carpet and Pad

Mechanical Attachment of Tackless Strips over Wood Subfloors

If the underlayment is ¾" (19MM) thick, use "Acoustical Concrete" tackless strips like #20-451 manufactured by Roberts Consolidated Industries. If the underlayment is thicker than ¾", use filler nails every 12" to 18" o.c. Use a filler nail long enough to penetrate at least 1/4" (6mm) into the subfloor.

Mechanical Attachment of Tackless Strips over Wood Subfloors

1. Use standard tackless strips with concrete nails every 18" to 24" (457 mm to 609 mm). Use a concrete nail long enough to penetrate through the underlayment a minimum of ¼" (6 mm) into the subfloor.
2. Use an air compressor-driven automatic nailer to install diamond point nails through the tackless strip and underlayment. One type of nailer is the Duo-Fast Coil Gun (Models 1N-123, 1N-124, 1N-125) and 1 ¼" (32 mm) Duo-Fast #054 nails.

When Rapid Floor underlayments have been poured over expanded or extruded polystyrene, mechanical attachment of tackless strips is not recommended.

Glue-Down Attachment of Tackless Strips

Prepare the underlayment according to Steps 1 and 2 on the cover of this brochure. The following products are compatible with Rapid Floor underlayments:

- Chemrex CX-948 1-800-433-9517
- Roberts 0167 Carpet Gripper Cement
- Hydroment 900 manufactured by Bostik
- Polyseamseal All Purpose Adhesive manufactured by Darworth Co.

Glue-Down Attachment of Carpet and Pad

Prepare the underlayment according to Steps 1 and 2 on the cover of this brochure. Rapid Floor underlayment can be used with many different carpets, carpet pads, and adhesives. Follow manufacturer's recommendations for adhesives. **Perform a sample installation to test bond compatibility.**

Free-Lying Carpet Modules

Prepare the underlayment according to Steps 1 and 2 on the cover of this brochure. Step 2 is mandatory. It is recommended the carpet modules be laid with 100% adhesive coverage.

Installing Carpet and Pads over Radiant Floor Heating

In these installations, use a low R-value carpet cushion to allow proper heat transfer from the floor. Infloor Carpet Cushion, available through Rapid Floor Systems, is recommended. It can be installed using any of the tackless methods previously described.

Recommendations for Attaching Wood or Metal Base Plates

Mechanical Attachment

Shoot power-actuated nails through the base plate and into the wood or concrete subfloor. The nail should be long enough to penetrate at least ½" (13 mm) into the subfloor. If the underlayment is too thick for the nails to penetrate the subfloor, use one of the following adhesives in addition to nailing:

- Chemrex CX-948 1-800-433-9517
- Hydroment 900 manufactured by Bostik
- Polyseamseal All Purpose Adhesive manufactured by Darworth Co.
- PL 400 manufactured by Contech
- Any construction grade adhesive suitable for use with a cementitious underlayment

Before applying any adhesive, prepare the underlayment according to Steps 1 and 2 on the cover of this brochure.

Attaching Base Plates Over Radiant Floor Heating

Base plates should not be mechanically fastened to the floor. Use of other adhesives listed under Mechanical attachment.

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