

Commercial Sheet Installation Instructions

Installation – S-995 Adhesive, S-580 Adhesive, S-1000 Adhesive, Flip® Spray
Seams – Heat Weld or S-761 Seam Adhesive; protect heat welded seams with S-762 Weld Road Coating Pen
Seam Method – Recess Scribe
Location – All grade levels
Substrates – Concrete; Approved Suspended Wood; Steel, Stainless Steel, Aluminum; Ceramic Tile, Terrazzo, Marble; Existing Resilient Floors; Polymeric Poured (Seamless Floors)

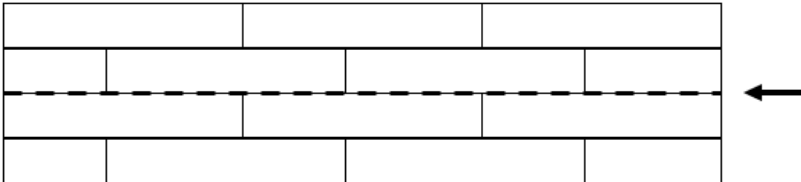
PATTERN MATCH

Based on the collection, please follow the pattern match requirements below. Also, keep in mind that shade variation can occur because of the sheet manufacturing process. When installing more than one roll of material, any potential jobsite shade variation can be reduced by:

1. Making sure all rolls share the same pattern number and the same shade lot/batch number.
2. Installing material sequentially by roll number.
3. Installing all cuts in the order of their removal from the roll.
4. If material from more than one batch is unavoidable, the job should be planned so that different batch numbers are not installed side by side or in the same location.

Type	Collection & Design	Pattern Match Requirement
HOM	Accolade Plus	Reverse Pieces No Trademark
	Corlon (HET)	Reverse Pieces Trademark (™) Edge to Trademark (™) Edge
	MedinPure	
	Medintech	
	Medintone	
HET Wood Visuals	Nidra	Do Not Reverse Pieces See Figure 1
	Rejuvenations Classics	Trademark (™) Edge to non-Trademark (™) Edge
	Rejuvenations with Diamond 10	Pieces should be a random match so ends of plank visuals are offset at least 3"–6" (7.62 cm–15.24 cm).
	Rejuvenations Restore	
HET Stone & Textile Visuals	Asana	Do Not Reverse Pieces Trademark (™) Edge to non-Trademark (™) Edge
	Rejuvenations Classics	
	Rejuvenations with Diamond 10	
	Rejuvenations Restore	
	Zenscape	
SR	Safety Zone Sheet	Reverse Pieces No Trademark

Figure 1 HET Wood Visuals Pattern Match



Installation Guide for Resilient Flooring

RECOMMENDED ADHESIVES & SEAM METHODS

Based on the collection, please reference the adhesive and seam requirements below prior to installation.

Type	Collection	Adhesives				Seams			
		S-995	S-580	FLIP	S-1000*	S-761	Heat Weld	Heat Weld Temp	S-762
HOM	Accolade Plus	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 450°C 650° - 850°F	Recommended
	Corlon	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
	MedinPure PVC-Free	Recommended	Recommended	Not Recommended	For Use in Specific Areas	Recommended	Recommended	340° - 400°C 665° - 750°F	Recommended
	Medintech	Recommended	Recommended	Recommended	For Use in Specific Areas	Recommended	Recommended	340° - 450°C 650° - 850°F	Recommended
	Medintone	Recommended	Recommended	Recommended	For Use in Specific Areas	Recommended	Recommended	340° - 450°C 650° - 850°F	Recommended
HET	Abode	Recommended	Recommended	Recommended	Not Recommended	Recommended	Not Recommended	Not Recommended	Not Recommended
	Asana	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
	Corlon	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
	Nidra	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
	Rejuvenations Classics	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
	Rejuvenations with Diamond 10	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
	Rejuvenations Restore	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
	Zenscape	Recommended	Recommended	Recommended	Not Recommended	Recommended	Recommended	340° - 400°C 650°-750°F	Recommended
SR	Safety Zone Sheet	Recommended	Recommended	Recommended	For Use in Specific Areas	Not Recommended	Recommended	340° - 450°C 650° - 850°F	Recommended

	Recommended
	For Use in Specific Areas
	Not Recommended

NOTE: Apply two coats of S-580 Flash Cove Adhesive with a brush or roller 4" (10.2 cm) onto the floor as well as up the entire cove area. Allow adhesive to dry to a pressure-sensitive state between applications. S-580 has unlimited working time.

*Recommended for Safety Zone Sheet in wet areas such as showers or areas that may be exposed to frequent water spills and/or cooler temperatures. These include entryways, areas around freezers/refrigerator cases and produce areas. Recommended for MedinPure in areas exposed to high static loads.

Installation Guide for Resilient Flooring

ACCEPTABLE SUBFLOORS & UNDERLAYMENTS

Wood

Flooring can be installed on suspended wood, OSB, or a treated plywood subfloor with a 1/4" underlayment and a minimum of 18" of well-ventilated air space below. Armstrong Flooring does not recommend installing resilient flooring on wood subfloors applied directly over concrete or on sleeper-construction subfloors over, on, or below grade concrete. Subfloors must meet local and national building codes. Trade associations, such as the APA - The Engineered Wood Association, offer structural guidelines for meeting various code requirements. Refer to ASTM F 1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to receive Resilient Flooring for additional information.

Wood strip, board, or plank subfloors must meet structural requirements. If the top layer is tongue-and-groove and the strip wood is 3" or less in face width, cover with 1/4" or thicker underlayment panels. All other layers should be covered with 1/2" or thicker underlayment panels.

Subject to the board manufacturer's recommendations and warranties, the following underlayments may be used with Armstrong flooring products:

- Plywood rated as suitable underlayment for resilient floor coverings
- Poplar or Birch Plywood with a fully sanded face and exterior glue
- Luan Plywood, Type 1 (Exterior)
- Fiber Reinforced Gypsum Underlayment, Fiber Cement Board & Cementitious Backerboard rated as suitable underlayment for resilient floor coverings

Armstrong Flooring does not recommend OSB or Treated Plywood (unless covered with a 1/4" of APA plywood underlayment), Particleboard or Hardboard.

Underlayments for resilient floors must:

- be structurally sound
- be designed for resilient flooring underlayment purposes
- be a minimum of 1/4" thick
- have panels smooth enough so that texture or graining will not show through
- resist dents and punctures from concentrated loads
- be free of any substance that may stain vinyl such as edge patching compounds, marking inks, paints, solvents, adhesives, asphalt, dye, etc.
- be installed in strict accordance with the board manufacturer's recommendations

For approved underlayments, Armstrong Flooring suggests the panels be lightly butted and not filled or flashed, unless the manufacturer specifically recommends filling the joints. Differences in the thickness of wood panels should be corrected by sanding. Allow the panels to condition to the job site per manufacturer's recommendations.

Concrete

New and existing concrete subfloors must meet the requirements of the current edition of ASTM F710, "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring". Regardless of the type of concrete or other cement-like material used as a base for resilient flooring, in the event of underlayment failure, the responsibility for warranties and/or performance guarantees rests with the concrete or cement-like material manufacturer and not with the manufacturer of resilient flooring.

Installation Guide for Resilient Flooring

Below-Grade & On-Grade Concrete Floors

1. The slab must be of good quality, standard density concrete with low water/cement ratios consistent with placing and finishing requirements, having a maximum slump of 4", a minimum compressive strength of 3000 psi, and following the recommendations of ACI Standard 302.1R for Class 2 or Class 4 floors and the Portland Cement Association's recommendations for slabs on ground.
2. The concrete slab must be dry, clean, smooth, structurally sound, and free of foreign materials that might prevent adhesive bond as described in the current edition of ASTM F710, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
3. The concrete slab must be protected from ground moisture with an effective and intact vapor retarder that conforms to the requirements of the current edition of ASTM E1745, "Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs."
4. The concrete slab must be placed directly on the vapor retarder.
5. The concrete must be wet cured with a moisture-retaining curing cover. Do not use spray-on curing compounds because these reduce the drying rate of concrete and can interfere with the adhesive bond.
6. Before installing the finished flooring, moisture, alkali and bond testing must be conducted.
7. Moisture testing must be performed in accordance with the current edition of ASTM F2170 "Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes" (preferred method) or in accordance with the current edition of ASTM F1869, "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride." See the section on Moisture Testing for more details.
8. Unless otherwise indicated in the adhesive specifications, the surface of the concrete must have a pH of 9 or less when tested according to the method described in the current edition of ASTM F710.
9. Bond testing must be performed to determine compatibility of the adhesives to the concrete slab.
10. After the concrete has cured and is dry, clean construction joints, saw cuts, score marks and cracks, and fill with an underlayment. Use high quality Portland Cement, calcium aluminates, or gypsum-based products. The floor fill, topping or underlayment must also have a minimum compressive strength of 3500 psi. When using these products, be sure to follow the manufacturer's recommendations regarding application, drying time, and moisture testing. S-194 Patch, Underlayment & Embossing Leveler, S-463 Level Strong and S-466 Patch Strong meet or exceed this requirement as underlayments.
11. Repaired areas must be finished flush with the surface of the concrete and allowed to fully dry before the installation of the floor covering.
12. Actual expansion joints or other moving joints with elastomeric fillers are designed to absorb movement in concrete slabs. Cementitious underlayments, patches and resilient flooring installed across expansion joints often crack or buckle when the slabs move. Armstrong Flooring does not recommend flooring products be installed across expansion or isolation joints. Expansion joint covers are available for use with various floor coverings and should be specified by the architect.
13. Dusty concrete slabs may be primed with one coat of S-185 Latex Primer. Sweep or vacuum the concrete and apply the S-185 with a 3/8" nap paint roller. You may also prime concrete subfloors with the recommended flooring adhesive for the material about to be installed.
14. After sweeping/vacuuming, apply the adhesive using a smooth-edge trowel. When using adhesive as a primer, allow the adhesive to dry completely.
15. A rough concrete floor can be ground smooth with a commercial diamond or carbide-equipped grinding machine. If the concrete subfloor is extremely rough or uneven, it may be too great a job to smooth this way. In this case, apply a cementitious underlayment such as S-194, S-463 or S-466. A smooth, flat, uniform surface is necessary as a good base for resilient flooring.

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Above-Grade Concrete Floors

Above-grade concrete is usually protected from most sources of moisture except the moisture initially in the mix and water vapor in the atmosphere. As with concrete placed on and below grade, above-grade concrete must be kept damp during the curing process to permit hydration to occur. Concrete poured on a metal deck is often produced with lightweight aggregate that can retain excess water longer than normal-weight aggregate. Because drying is only possible from the top surface, such construction usually takes additional drying time. Floors on metal decks or above-grade structural concrete floors must be dried and must meet the same requirements as described in Sections C-2 and C-3 for slabs on and below grade. Follow steps 7-15 above.

Curing, Sealing, Hardening, or Parting Compounds

Curing compounds leave a film that can interfere with adhesion. Use should be avoided on surfaces that will later be covered with resilient floor covering. Where applicable, a letter of compatibility should be obtained from the manufacturer before the use of a curing compound.

When curing, sealing, hardening, or parting compounds have been used, the following general statements can be made:

- If they contain soap, wax, oil, or silicone, the compounds must be removed before a resilient floor can be installed. The compounds can be removed by using a terrazzo or concrete grinder, by sanding with a drum sander or by using a polishing machine equipped with a heavy-duty wire brush.
- There are many materials that do not contain soap, wax, oil, or silicone and are advertised as being compatible with resilient flooring adhesives. Conduct bond tests to determine the need for removal. If the bond fails after 72 hours, the compound must be removed.

NOTE: In the event of adhesion failure, the responsibility for warranties and/or performance guarantees rests with the compound manufacturer and not with the manufacturer of the resilient flooring and/or adhesives.

Existing Resilient Floors

Armstrong flooring products may be installed over a single layer of existing resilient flooring when the proper installation system is used for the new product and the existing resilient flooring meets the proper conditions. Armstrong Flooring does not recommend installing new flooring over existing rubber or slip retardant floors.

NOTE: The responsibility for determining if the old resilient flooring is well-bonded to the subfloor and is not textured or embossed enough to show through the final installation rests with the installer. Installations over existing resilient flooring may be more susceptible to indentations.

Required flooring conditions:

- Not textured or embossed enough to show through the new installation.
- Only a single layer of flooring.
- Fully and firmly bonded on an approved subfloor and underlayment.
- Waxes, polishes, and other finishes must be properly removed with a recommended floor stripper. For existing linoleum, the stripper should not exceed a pH of 10.
- Indentations or damaged areas must be replaced or repaired.

Installation Guide for Resilient Flooring

Type	Resilient Tile			Asphalt Tile	Vinyl Plank			Sheet
	On Grade	Below Grade	Suspended	On Grade & Suspended Only	On Grade	Below Grade	Suspended	Not Cushioned or Foamed Backed – All Grade Levels
HET	X		X				X	X
HOM			x				X	X

Polymeric Poured Floors, Metal, Ceramic Tile, Quarry Tile, Terrazzo & Marble

Armstrong commercial sheet flooring may be installed directly over polymeric poured floors. To install flooring over polymeric poured floors, the surface must be roughened and then a Portland cement-type underlayment applied. Mix S-194 with the S-195 Underlayment Additive.

Polymeric poured floors must be well cured, have no history of moisture related problems, be free of any residual solvent, smooth, structurally sound, and well bonded to a concrete subfloor. Loose or damaged areas must be completely removed and patched with S-194 as necessary. Remove any “nubby” texture with wet, sharp sand and a floor machine equipped with carborundum stones. Do not use a skim coat of latex underlayment to smooth the surface as it will not adhere reliably.

Armstrong commercial sheet flooring may be installed directly over ceramic tile, quarry tile, terrazzo or marble subfloors on all grade levels which are firmly bonded to a structurally sound substrate. Clean the floor of all paint, varnish, oil, wax and finishes. Roughen glazed or very smooth surfaces and repair badly fitted joints or cracks with, S-466 or S-194. If the floors are badly worn or have low places, they should be leveled with, S-466 or S-194.

To install over metal, the surface must be roughened and then a Portland cement-type underlayment applied at a minimum of 1/8” thickness. Mix S-194 with the S-195 Underlayment Additive.

Installation Guide for Resilient Flooring

JOB CONDITIONS/PREPARATION

- **Resilient flooring should only be installed in temperature-controlled environments.** It is necessary to maintain a constant temperature before, during and after the installation. Therefore, the permanent or temporary HVAC system must be in operation before the installation of resilient flooring. Portable heaters are not recommended, as they may not heat the room and subfloor sufficiently. Kerosene heaters should never be used.
- The surface shall be free of dust, solvents, varnish, paint, wax, oil, grease, sealers, curing compounds, residual adhesive¹, adhesive removers and other foreign materials that might affect the adhesion of resilient flooring to the substrate or cause a discoloration of the flooring from below. Spray paints, permanent markers and other indelible ink markers must not be used to write on the back of the flooring material or used to mark the substrate as they could bleed through, telegraphing up to the surface and permanently staining the flooring material. If these contaminants are present on the substrate, they must be mechanically removed prior to the installation of the flooring material.
- In renovation or remodel work, remove any existing adhesive residue¹ so that 100% of the overall area of the original substrate is exposed.
- Allow all flooring materials and adhesives to condition to the room temperature for a minimum of 48 hours before starting the installation.
- The area to receive the resilient flooring should be maintained at a minimum of 65° F (18° C) and a maximum of 100° F (38° C) for 48 hours before, during and for 48 hours after completion.
- During the service life of the floor, the temperature should never rise above 100° F (38° C) nor fall below 55° F (13° C). The performance of the flooring material and adhesives can be adversely affected outside this temperature range.
- Conduct calcium chloride tests or percent relative humidity tests on concrete. Testing for internal relative humidity of concrete slabs must be conducted in strict accordance with the current edition of ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes. All tests must meet allowable moisture limits. Any area that exceeds the allowable moisture limit must be further dried to an acceptable level or treated with a moisture remediation system before flooring installation. Performance of any third-party moisture remediation system rests with the manufacturer of that system, not with Armstrong Flooring. These tests are only indicators of moisture conditions at the time the tests are conducted.
- MVER tests must be conducted in accordance with the current edition of ASTM F1869 Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. When performing these tests, it is important to remove any curing agents or residues down to the bare concrete. The calcium chloride tests are to be performed only on ordinary concrete floors and are not applicable on lightweight concrete, smoothing or leveling compounds, gypsum underlayments, or other fills.

¹ Some previously manufactured asphaltic “cutback” adhesives contained asbestos (see warning statement on the last page). For removal instructions, refer to the Resilient Floor Covering Institute’s publication Recommended Work Practices for Removal of Resilient Floor Coverings.

Installation Guide for Resilient Flooring

Adhesives	% Internal Relative Humidity (RH)	MVER, lbs. per 1000ft ² / 24 hours	pH
S-995 Adhesive	On or Above Grade: 95% Below Grade: 90%	-	On or Above Grade: 8-10 Below Grade: 9
S-580 Adhesive	80%		5-9
S-1000 Adhesive	100%	14	14
Flip	95%		5-11

- Bond tests should also be conducted for compatibility with the substrate. It is recommended that this test be used to determine the compatibility of resilient flooring adhesives to concrete subfloors after the removal of old adhesives, curing agents, parting compounds, dust inhibitors, oil, grease, paint, varnish and other special surface treatments or conditions. Using the flooring material and recommended adhesives, install 3' x 3' panels spaced approximately 50' apart throughout the subfloor area. Select areas next to walls, columns, or other light traffic areas. Tape edges of panels to prevent edge drying of adhesive. When testing where a curing agent has been used, the curing agent must be removed in some areas for bond testing. If the panels are securely bonded after a period of 72 hours, you may conclude that the subfloor surface is sufficiently clean of foreign material for satisfactory installation of the resilient flooring.
- As an alternative to the removal of residual asphalt cutback adhesives or installing directly on metal substrates, apply a minimum 1/8" layer of cementitious underlayment, such as S-194 Patch, Underlayment and Embossing Leveler or S-466 Patch Strong™, as approved by the underlayment manufacturer. All warranties and/or performance guarantees concerning third-party underlayment failure rest with the underlayment manufacturer and not with Armstrong Flooring.
- Many adhesive removal products contain solvents that leave a residue within the subfloor. This residue can negatively affect the new adhesive and bleed through the new floor covering. The use of asbestos encapsulants or bridging materials over asphaltic adhesive is not recommended. These products may affect the bonding properties of the new adhesive.
- Radiant-heated substrates must not exceed a maximum surface temperature of 85° F (29° C).
- Concrete floors should be tested for alkalinity. The allowable readings are determined by the adhesive being used for installation.

FITTING

- Unroll material and lay flat to allow the roll curl to relax before fitting.
- Material must be adhered within 4 hours of cutting and fitting.
- Before installing the material, plan the layout so seams fall at least 6" (15.24 cm) away from subfloor/underlayment joints. Do not install over expansion joints.
- When installing over an existing resilient floor, plan the layout so the new seams do not coincide with seams or joints of the existing installation.
- Recommended fitting procedures include freehand knifing, straight scribing, or pattern scribing.

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Adhesives	Set-in-Wet	Dry-to-Touch	Working Time	Traffic Post-Installation
S-995 Adhesive	Open Time: >10 minutes. Trowel: U Notch 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 1/32" (0.8 mm) apart; porous substrates only	Open Time: >15 minutes. Trowel: U Notch 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 1/32" (0.8 mm) apart	2 Hours	Light Foot Traffic: 24 Hours Heavy Traffic & Rolling Loads: 48 Hours
S-580 Adhesive	-	Open Time: 30 minutes Trowel: Brush or Roll On	20-30 Minutes	
S-1000 Adhesive	Open Time: 10–20 minutes Trowel: U Notch 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 1/32" (0.8 mm) apart		45 Minutes	Light Foot Traffic: 4 Hours Heavy Traffic & Rolling Loads: 8 Hours
Flip® Adhesive	-	Open Time: 30 minutes Spray On	4 Hours	Heavy Traffic & Rolling Loads: Immediate

ABUTTING DIFFERENT GAUGES OF RESILIENT FLOORING

When installing thinner gauge material next to thicker gauge materials, install thicker material first and then butt a 12" (30.5 cm) wide piece of scribing felt against the thicker material. Adhere the scribing felt to the subfloor with suitable adhesive. Use S-194 Patch, Underlayment and Embossing Leveler or S-466 Patch Strong™ to feather the edge of the scribing felt to the level of the substrate. Allow the patch to dry completely before installing the flooring. Scribing felt is not recommended to be used under the entire installation.

Installation Guide for Resilient Flooring

PROCEDURE | S-995

1. Cut pieces to the proper length, allowing enough material at each end to flash 1-1/2" (31.8 mm) up the walls for fitting.

NOTE: If you cover wet areas or cover the adhesive too soon, blisters will form after rolling. Blisters caused by inadequate drying time will begin to show within one hour after rolling. The amount of open time will vary according to job conditions, temperature, humidity, air flow and type of substrate.
2. Before installing the material, plan the layout so seams fall at least 6" (15.24 cm) away from underlayment joints, seams in existing resilient flooring and/or saw cuts in concrete. Do not install over expansion joints.
3. Cut pieces from the roll to the specified length, allowing enough material at each end to flash 1-1/2" (31.8 mm) up the wall for fitting.
4. Recommended fitting procedures include freehand knifing, pattern scribing and straight scribing methods.
5. Fit piece #1 and position in the room.
6. Prepare the seam edge by trimming the factory seam edge using an edge trimmer.
7. Draw a pencil line on the subfloor along the length of the trimmed factory edge.
8. Carefully lap the material back halfway to expose the subfloor.
9. Starting at the lap point and working toward the end wall, apply the adhesive up to the pencil line.
10. Allow the recommended open time before placing the material into the adhesive. Use extreme care when positioning the flooring over the adhesive, which has a firm grab and does not allow repositioning.
11. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller, staying 2" (5.1 cm) away from the seam. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water.
12. Repeat steps # 8 through #11 for the remaining half of piece #1
13. Cut piece #2, allowing enough material at each end to flash 1-1/2" (31.8 mm) up the wall for fitting.
14. Install pieces as recommended.
15. Overlap piece #2 onto piece #1 approximately 1/2" (12.7 mm). Prepare the seam edge on the opposite side of the sheet by trimming the factory seam edge using an edge trimmer.
16. Draw a pencil line on the subfloor along the length of the trimmed factory edge.
17. Carefully lap the material back halfway to expose the subfloor.
18. Starting at the lap point and working toward the end wall, apply the adhesive up to the pencil line.

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19. Allow the recommended open time before placing the material into the adhesive. Use extreme care when positioning the flooring over adhesive, which has a firm grab and does not allow repositioning.
20. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller staying 2" (5.1 cm) away from the seam. Clean adhesive residue from the surface of the flooring using a clean white cloth dampened with a neutral detergent and water.
21. Repeat steps #17 through #20 for the remaining half of piece #2.
22. Follow the same procedures for the remaining pieces, completing one piece at a time until the job is finished.
23. Clean adhesive residue from the surface of the flooring using a clean white cloth dampened with a neutral detergent and water. Give special attention to seam areas as they must be clean and dry before proceeding with heat welding or sealing.
24. Do not allow traffic on the flooring for 24 hours after installation.
25. Newly installed flooring should not be exposed to rolling load traffic for at least 48 hours after installation to allow setting and drying of the adhesive.

PROCEDURE | FLIP® Adhesive

- Seams in sheet vinyl must be heat welded only. Seams may be welded immediately.
- Condition area to be installed, adhesive, and tile at 65° F (18° C) or above for 48 hours before
- Shake bottle well. Point the bottle downward and press the side of the nozzle tip.
- Walk back and forth at a steady pace. Do not use a sweeping motion. Use a shield to protect walls from overspray. A shield can be as simple as a piece of cardboard.
- Spray the perimeter first, then fill in the rest of the room.
- Allow adhesive to set open until dry to the touch, approximately 30 minutes. When dry to the touch, the adhesive will be tacky with no transfer to fingers.
- Wet adhesive, overspray or drips should be cleaned and smoothed immediately using a cloth moistened with soap and water. Drips can be smoothed out with spatula or flat trowel. Between uses, clean the spray tip with a clean wet cloth to prevent accumulation of dried adhesive.
- Install and fit all material within 4 hours. Working time will vary based on job conditions, substrate, temperature, and humidity.
- Roll the floor once immediately after installation in both directions with a 100-lb roller.
- Remove wet adhesive residue using a clean, white cloth dampened with soapy water. Use mineral spirits for dried adhesive residue carefully following warnings on container.
- Do not wet wash or scrub flooring for at least five days after installation.

Installation Guide for Resilient Flooring

PROCEDURE | Perimeter Plus with S-995 & S-1000

Use a full spread of S-995 in field areas with a 3" (7.6 cm) band of S-1000 Adhesive at the perimeter of the room. Recommended for Safety Zone Sheet in wet areas such as showers or areas that may be exposed to frequent water spills and/or cooler temperatures. These include entryways, areas around freezers/refrigerator cases and produce areas.

- Follow installation and seaming details for full spread with S-995 Adhesive except for the S-1000 at the perimeter of the room and at floor drains.
- We require a push in 'ring and clamp' floor drain fitted prior to the installation of the flooring (Figure 1). Safety Zone Sheet is to be installed into the pull-down base with S-1000 Adhesive and clamped with the clamp ring and grate set.
- Apply a 3" (7.6 cm) band of S-1000 around the perimeter of the room and at all floor drains (Figure 2). Full spread the remaining area using S-995 Adhesive. Allow the recommended open time before placing the material into the adhesive. Working time of the S-1000 is approximately 45 minutes. Do not allow the S-1000 to dry completely.

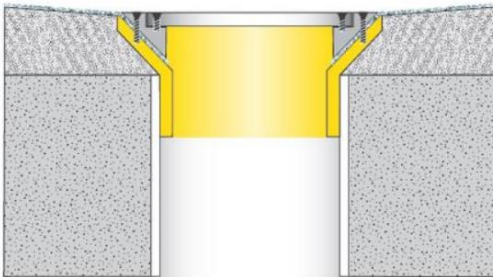


Figure 1: Ring & Clamp Floor Drain

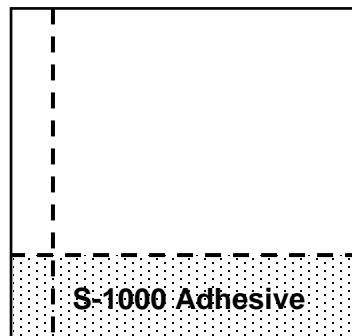


Figure 2: Adhesive

- Roll flooring after 1 hour, but within 2 hours of adhesive application. Starting at the center and working toward the edges, roll the material in two directions [staying 2" (5.1 cm) away from any seams] using a 100-lb. roller. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with mineral spirits. Dried S-1000 adhesive cannot be removed.
- Follow the same procedures for the remaining pieces, completing one piece at a time until the job is finished.
- Do not work on newly adhered flooring except to roll. Use a kneeling board if necessary.
- Do not allow traffic on the flooring for 24 hours after installation.
- Newly installed flooring should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.

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Medintech, Medintone, MedinPure & Safety Zone Sheet in Environmental Conditioning Units

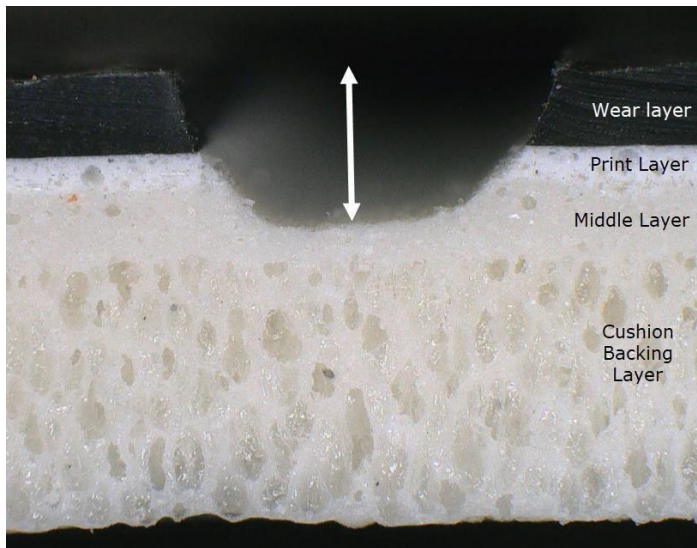
- Maintain temperature of the room at a minimum of 65° F (18° C) for 48 hours before installation, during installation, and for 72 hours after installation. Maximum room temperature is 100° F (38° C). If these temperatures are not maintained for the recommended period, the flooring material and adhesives may not perform as they should.
- Follow installation and seaming details for Full Spread S-995. Seams must be heat welded.
- Use S-1000 adhesive at all floor drains. Apply a 3" (7.6 cm) band of S-1000 adhesive around any floor drains in area of installation.
- Roll the material in two directions using a 100-lb. roller. Roll immediately after placement of flooring and re-roll again 1 hour later. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water. Dried S-1000 Adhesive cannot be removed.
- Immediately after installation, apply a bead of silicone caulk along the top of the cap strip and onto the wall.
- After the material has been installed and allowed to condition for 72 hours, gradually lower the temperature of the room over a period of 3 days. The temperature of the room should never go below 34° F (1° C).
- Do not allow traffic on the flooring for 24 hours after installation.
- Newly installed flooring should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.

Installation Guide for Resilient Flooring

SEAMS | Heat Welding

- Flooring installed using the dry-to-touch method may be heat welded immediately. For all other installations, wait a minimum of 10 hours.
- For Heterogeneous Sheet, rout or groove the seams to a depth 1/2 to 2/3 the thickness of the full structure. Do not expose the backing by routing too deeply.

NOTE: For Rejuvenations Restore rout or groove the seams to about a depth of 1/3 to 1/2 of the thickness of the full structure. Applying uneven pressure with a hand groover can result in an uneven groove and can make the weld rod appear to vary in width because of the varying depth. To ensure an even groove depth it is recommended to use an automatic router or Turbo sports groover where possible. See Figure 4.



- Use router equipped with a 3.5 mm (0.1379") thick blade and guide wheels. In areas where a power router cannot be used, use a hand groover.
- Make sure the routed seam is free of dirt, adhesive and particles produced by routing.
- Cut the weld rod long enough to weld about 3/4 of the seam.
- Set the correct welding temperature and pre-heat welding gun for several minutes.
- Attach the appropriate tip (nozzle) to the gun and adjust to the proper temperature. Use of pre-heated welding nozzles will require higher temperatures.
- Feed the weld rod through the welding tip and apply the weld rod into the routed seam.
- The heat gun is at the proper angle when the bottom of the nozzle is parallel to the floor. Welding is accomplished by pulling the heat gun slowly toward you.
- Control speed so a ridge forms on both sides of the weld rod. Be careful not to burn or char the surface of the floor.

Installation Guide for Resilient Flooring

- To stop welding and change directions, first make a ramp. Skive the weld rod 1" to 2" from the end of the welded seam. Using a hand groover, groove the skived section of the weld rod.
- Start welding from the opposite direction, continue up the “ramp” and overlap the initial weld for several inches, creating a splice.
- Skiving the weld rod should be done in two passes to minimize concave seams. On the first pass, use a spatula knife and a trim plate, skiving away the top part of the weld rod while it is still warm.

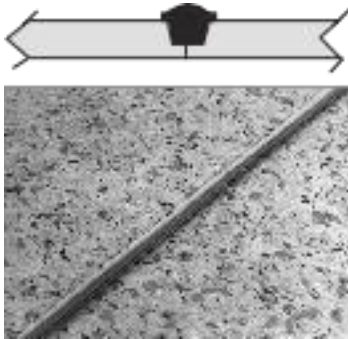


Figure 4



Figure 5

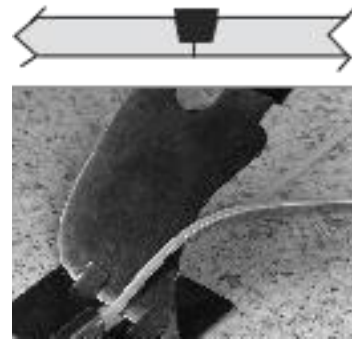


Figure 6

- After the weld rod has cooled to room temperature, remove the remaining excess weld rod on the second pass by holding the spatula knife flush with the flooring (Fig. 7). Smooth, continuous passes result in smooth seams. Repeated stop/start actions result in rough seams. NOTE: For PVC-Free weld rods apply heat to the surface of the seam to restore the color if stress whitening occurs due to skiving.

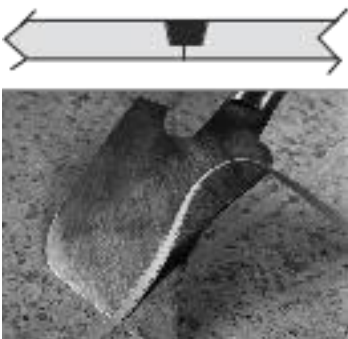


Figure 7

- After the final skive, wipe the welded seam with a clean, damp cloth. When dry, following the manufacturer’s directions, apply a thin, even application of a commercially available, high-quality multi-purpose top coating such as S-762 Weld Rod Coating Pen. Use care when applying the finish to avoid over-application onto the wear layer of the adjacent sheet flooring material. In high traffic areas, apply one or two additional coats, making sure the finish is completely dry between applications.

Installation Guide for Resilient Flooring

SEAMS | Heat Weld Repairs

- Remove the damaged rod with a hand-grooving tool. If the original seam was grooved using a routing machine, you can easily remove the welding rod with a hand-grooving tool. If the original seam was grooved using a hand-grooving tool, you may have problems with the seam being wider in places and removing the rod with a hand-grooving tool could make the seam even wider and possibly harder to weld with the new welding rod. When grooving the seam, take out the width of the original rod. It is not necessary to groove out the entire depth of the rod. As long as the original rod is firmly bonded, this will not create any problems. Once the seam has been grooved and cleaned out, you can weld the seam with the new rod following the recommended temperature settings for the flooring material.
- Skive the excess rod from the flooring surface in two passes. On the first pass, skive away the top part of the welding rod using a spatula knife and trim plate while the welding rod is still warm. The welding rod must be cooled to room temperature to remove the remainder of the welding rod on the second pass. Remove the remaining rod by holding the spatula knife flush with the flooring surface while skiving.

SEAMS | S-761 Adhesive

Seam Adhesive is not recommended in healthcare operating rooms, procedural rooms, or any space where an aseptic environment is necessary. Heat-welded seams are recommended for those types of applications.

- Use a recess scribing tool to recess scribe all seams net.
- Insert a piece of scrap material beneath the scribe mark. With the scrap on the same side as the cutting hand, cut the seam at a 90° angle. Be sure to hold the knife blade straight up and down.
- Remove the scrap piece of material.
- Cut the tip of the S-761 Seam Adhesive applicator bottle and apply a continuous 1/8" (3.18 mm) bead of S-761 Seam Adhesive along the seam edge.
- Tuck the seam edge into place, forcing the S-761 Seam Adhesive up through the seam.
- Clean adhesive residue from the surface of the flooring using a clean white cloth dampened with a neutral detergent and water.
- Roll the seam into place using a hand roller.
- Remove burr at the seam by carefully skiving with the back of the linoleum knife.
- Roll immediately in both directions with a 100-lb. roller.

FLASH COVING

All normal fitting methods can be used to flash cove. Apply two coats of S-580 Flash Cove Adhesive with a brush 4" (10.2 cm) on the floor as well as up the entire cove area. Allow adhesive to dry to a pressure sensitive state between applications. S-580 has unlimited working time. Roll the flooring into the adhesive with a hand roller.

REMOVAL OF RESILIENT FLOOR TILE, SHEET FLOORING AND “CUTBACK” ADHESIVE**RECOMMENDED WORK PRACTICES**

Instructions for removing resilient floor tile, sheet flooring and asphaltic “cutback” adhesives are not contained in this manual. Refer to the current Resilient Floor Covering Institute’s (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings, that addresses each in-place product type: resilient floor tile, resilient sheet flooring, asphaltic “cutback” adhesive or other adhesive.

REGULATIONS AFFECTING THE REMOVAL OF EXISTING RESILIENT FLOOR COVERINGS

- Various federal, state and local government agencies have regulations governing the removal of in-place asbestos-containing material. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable regulations.
- Vinyl-asbestos tile and asphalt tile contain asbestos fibers, as did some asphaltic “cutback” adhesives and the backings of many sheet vinyl floorings and lining felts. The presence of the asbestos in these products is not readily identifiable.
- Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.
- The Recommended Work Practices are a defined set of instructions that address the task of removing all resilient floor covering structures, whether or not they contain asbestos. When the Recommended Work Practices are followed, resilient floor covering structures that contain (or are presumed to contain) asbestos can be removed in a manner that will comply with the current Occupational Safety and Health Administration’s (OSHA) Occupational Exposure to Asbestos Standard’s Permissible Exposure Limits (PEL).
- Numerous products, devices and techniques have been introduced and/or recommended for the removal of resilient floor covering structures. Armstrong is only able to endorse the RFCI Recommended Work Practices. Before you use any other practice for the removal of an in-place resilient floor covering product that contains (or is presumed to contain) asbestos, you should determine if the practice meets all applicable regulations or standards, including those of OSHA, for occupational exposure to asbestos and that the material will be compatible with the new floor covering to be installed.
- See federal and location regulations on lead- based paint testing, safety precautions and notification requirements.

WARNING

EXISTING IN-PLACE RESILIENT FLOOR COVERING AND ASPHALTIC ADHESIVES. DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST, OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC “CUTBACK” ADHESIVE OR OTHER ADHESIVE.

These existing in-place products may contain asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for instructions on removing all resilient floor covering structures.