Commercial Vinyl-Backed Flooring
Installation System

Product	Full Spread		Perimeter Plus	Concentrated Static & Dynamic Load Areas
	S-599 Set in Wet or Dry to Touch	S-230	S-599/S-230	S-240
TRANSLATIONS Sheet TIMBERLINE Sheet PERSPECTIVES Sheet	X			X
PERSPECTIVES Tile	X			X
MEDINTECH ROYAL	X			X
SAFEGUARD SAFEGUARD Design	X	X	X	
SAFEGUARD Hydro			X	

Product	Heat Weld	S-761	S-553 Seal & Wipe
TIMBERLINE TRANSLATIONS PERSPECTIVES Sheet	X		X
MEDINTECH ROYAL	X	X	
SAFEGUARD SAFEGUARD Design SAFEGUARD Hydro	X		

Suitable Substrates:

All substrates listed below must be properly prepared and meet the requirements discussed in Section IV, Subfloors and Underlayments. There may be other exceptions and special conditions for these substrates to be suitable for the Commercial Vinyl-Backed Installation System.

- Concrete (on all grade levels)
- Approved Suspended Wood
- Existing Resilient Floors
- Steel, Stainless Steel, Aluminum
- Ceramic Tile, Terrazzo, Marble
- Polymeric Poured (seamless) Floors

Note: PERSPECTIVES Tile is only recommended over porous concrete (all grade levels) and approved suspended wood substrates.

Job Conditions/Preparation:

- Substrates must be dry, clean, smooth and free from paint, varnish, wax, oils, solvents and other foreign matter.
- In renovation or remodel work, remove any existing adhesive residue* 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 a minimum of 48 hours before starting the installation.

- The area to receive 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. **Note: When using S-230 or S-240 Epoxy Adhesives the maximum room temperature should not exceed 85°F (29°C).**
- During the service life of the floor the temperature should never fall below 55°F (13°C). The performance of the flooring material and adhesives can be adversely affected below this minimum temperature.
- Conduct calcium chloride tests. Bond tests should also be conducted for compatibility with the substrate. Please refer to Section IV, Subfloors and Underlayments.
- 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 for the installation of Armstrong flooring are 5 to 9 on the pH scale.

Fitting:

Unroll material and lay flat to allow the roll curl to relax before fitting. The lines on the back of TRANSLATIONS, TIMBERLINE, PERSPECTIVES, SAFEGUARD, SAFEGUARD Design and SAFEGUARD Hydro represent trademark edges. The Armstrong logo on the surface of MEDINTECH and ROYAL represent trademark edges.

Material must be adhered within 4 hours of cutting and fitting.

Before installing the material, plan the layout so seams fall at least 6″ 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.

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″-wide piece of S-153 Scribing Felt against the thicker material. Adhere the Scribing Felt to the subfloor with S-235 Adhesive. Use the fine notching of the Armstrong S-891 Trowel over nonporous substrates such as existing resilient flooring, and use the regular notching of the Armstrong S-891 Trowel over porous subfloors such as wood and concrete. Use Armstrong S-184 Fast-Setting Cement-Based Patch and Skim Coat or S-194 Patch, Underlayment and Embossing Leveler to feather the edge of the S-153 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. **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. All adhesives are applied with fine notching (1/32″ deep, 1/16″ wide, 5/64″ apart).

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

Adhesive Open Time and Trowel Notchings

Product and Adhesive	Open Time POROUS Subfloors	Open Time NONPOROUS Subfloors
MEDINTECH, ROYAL with **S-599** **For MEDINTECH installations only:** Apply Armstrong S-599 adhesive onto a piece of scrap material. Wet out a 3/16″ nap paint roller by rolling it into the S-599 adhesive. This will prevent the removal of the already applied S-599 adhesive. Using the 3/16″ nap paint roller, create a uniform application of Armstrong S-599 adhesive by carefully rolling out the S-599 adhesive trowel ridges. Be sure the adhesive is wet and not dry to the touch before rolling.	**Set in Wet:** Approximately 10–20 minutes (paste-like consistency) **Dry to Touch:** Approximately 30 minutes (no transfer of adhesive to finger) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart	**Dry to Touch:** Approximately 30 minutes (no transfer of adhesive to finger) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart
PERSPECTIVES, TIMBERLINE, TRANSLATIONS, SAFEGUARD, SAFEGUARD DESIGN and SAFEGUARD Hydro Sheet with **S-599**	**Dry to Touch:** Approximately 30 minutes (no transfer of adhesive to finger) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart	**Dry to Touch:** Approximately 30 minutes (no transfer of adhesive to finger) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart
MEDINTECH, ROYAL, PERSPECTIVES, TIMBERLINE and TRANSLATIONS Sheet with **S-240** with adhesive ridges back rolled with 3/16″ nap roller	**Set in Wet:** Approximately 10–20 minutes (do **not** allow to dry to the touch) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart	**Set in Wet:** Approximately 10–20 minutes (do **not** allow to dry to the touch) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart
MEDINTECH, ROYAL, PERSPECTIVES, TIMBERLINE, TRANSLATIONS, SAFEGUARD, SAFEGUARD DESIGN and SAFEGUARD Hydro Sheet with **S-580** (Flash cove areas only)	**Dry to Touch:** Approximately 30 minutes (no transfer of adhesive to finger) **Trowel Notching:** Brush-on	**Dry to Touch:** Approximately 30 minutes (no transfer of adhesive to finger) **Trowel Notching:** Brush-on
SAFEGUARD, SAFEGUARD DESIGN and SAFEGUARD Hydro Sheet with **S-230**	**Set in Wet:** Approximately 10–20 minutes (do **not** allow to dry to the touch) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart	**Set in Wet:** Approximately 10–20 minutes (do **not** allow to dry to the touch) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart
PERSPECTIVES Tile with **S-599**	**Set in Wet:** Approximately 10–20 minutes (do **not** allow to dry to the touch) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart	**NOT RECOMMENDED**
PERSPECTIVES Tile with **S-240** with adhesive ridges back rolled with 3/16″ nap roller	**Set in Wet:** Approximately 10–20 minutes (do **not** allow to dry to the touch) **Fine Notch:** 1/32″ deep, 1/16″ wide, 5/64″ apart	**NOT RECOMMENDED**

Procedure:

See Section VI, Adhesives, Trowel Notchings and Seam Treatments.

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.

Cut pieces to the proper length, allowing enough material at each end to flash 1 1/2″ up the walls for fitting.

Sheet Installation:

■ **Full-Spread with S-599 and HEAT-WELDED SEAMS:**

Apply adhesive with fine notching of the S-891Trowel. When installing over nonporous substrates such as existing resilient flooring, allow enough open time for adhesive to dry until tacky with little or no transfer to the finger (dry-to-touch) before placing the material into it. When installing over porous subfloors such as concrete and wood, allow the adhesive to thicken to a paste-like consistency (set-in-wet/see Adhesive Open Time chart on previous page) before placing the material into the adhesive. The adhesive should show good transfer to the finger before placement of the floor. Recess scribe seams. Use S-580 Adhesive in flash cove areas.

1. Before installing the material, plan the layout so seams fall at least 6″ away from underlayment joints, seams in existing resilient flooring and/or saw cuts in concrete. Do not install over expansion joints.
2. Cut pieces from the roll to the specified length, allowing enough material at each end to flash 1 1/2″ up the wall for fitting.
3. Recommended fitting procedures include freehand knifing, pattern scribing and straight scribing methods.
4. Fit piece #1 and position in the room.
5. Prepare the seam edge by trimming the factory seam edge using the Armstrong S-33 Edge Trimmer.
6. Draw a pencil line on the subfloor along the length of the trimmed factory edge.
7. Carefully lap the material back halfway to expose the subfloor.
8. Starting at the lap point and working toward the end wall, apply the Armstrong S-599 Adhesive up to the pencil line using the fine notching of the Armstrong S-891 Trowel.

   For MEDINTECH installations only: Apply Armstrong S-599 adhesive onto a piece of scrap material. Wet out a 3/16″ nap paint roller by rolling it into the S-599 adhesive. This will prevent the removal of the already applied S-599 adhesive.

   Using the 3/16″ nap paint roller, create a uniform application of Armstrong S-599 adhesive by carefully rolling out the S-599 adhesive trowel ridges. Be sure the adhesive is wet and not dry to the touch before rolling.
9. Allow the recommended open time before placing the material into the adhesive. Use extreme care when positioning the flooring over Armstrong S-599 Adhesive, which has a firm grab and does not allow repositioning.
10. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller staying 2″ 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.

11. Repeat steps #7 through #10.
12. Cut piece #2 allowing enough material at each end to flash 1 1/2″ up the wall for fitting.
13. **Install pieces as recommended, TM edge to TM edge or TM edge to non-TM edge**.
14. Overlap piece #2 onto piece #1 approximately 1/2″. Prepare the seam edge on the opposite side of the sheet by trimming the factory seam edge using the Armstrong S-33 Edge Trimmer.
15. Draw a pencil line on the subfloor along the length of the trimmed factory edge.
16. Carefully lap the material back halfway to expose the subfloor.
17. Starting at the lap point and working toward the end wall, apply the Armstrong S-599 Adhesive up to the pencil line using the fine notching of the Armstrong S-891 Trowel.

    For MEDINTECH installations only: Apply Armstrong S-599 adhesive onto a piece of scrap material. Wet out a 3/16″ nap paint roller by rolling it into the S-599 adhesive. This will prevent the removal of the already applied S-599 adhesive.

    Using the 3/16″ nap paint roller, create a uniform application of Armstrong S-599 adhesive by carefully rolling out the S-599 adhesive trowel ridges. Be sure the adhesive is wet and not dry to the touch before rolling.
18. Allow the recommended open time before placing the material into the adhesive. Use extreme care when positioning the flooring over Armstrong S-599 Epoxy Adhesive which has a firm grab and does not allow repositioning.
19. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller staying 2″ 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.
20. Repeat steps #16 through #19 for the remaining half of piece #2.
21. Recess scribe the seam using an Armstrong S-83 Recess Scriber. When heat welding, seams may be recess scribed slightly open (1/64″) to make guiding the router easier otherwise cut seams net.
22. Before cutting the seam, protect the floor by inserting a piece of scrap material beneath the scribe mark. With the scrap on the same side as the cutting hand, cut the seam holding a straight blade knife straight up and down.
23. Roll the seam into place using an Armstrong S-77 Hand Roller and roll again with a 100-lb. roller.
24. Follow the same procedures for the remaining pieces, completing one piece at a time until the job is finished.
25. Heat weld seams as recommended. Refer to Section VIII, Seams, Heat Welded Seams.
26. Do not allow traffic on the flooring for 24 hours after installation.
27. 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.

■ Installing Full-Spread with Armstrong S-599 and Armstrong S-761 Seam Adhesive for MEDINTECH and ROYAL only:

1. Before installing, plan the layout so seams fall at least 6″ away from subfloor/underlayment joint and seams in existing resilient flooring. Do not install over expansion joints.
2. Cut pieces to the proper length, allowing enough material at each end to flash 1 1/2″ up the walls for fitting.
3. Fit piece #1 by pattern scribing or straight scribing methods.
4. Prepare the seam edge by trimming the factory seam edge using the S-33 Edge Trimmer.
5. Draw a pencil line on the subfloor along the trimmed factory edge.
6. Carefully lap the material back halfway to expose the subfloor.
7. Starting at the lap point and working toward the end wall, apply the Armstrong S-599 Adhesive up to the pencil line using the standard notching of the Armstrong S-891 Trowel.

   For MEDINTECH installations only: Apply Armstrong S-599 adhesive onto a piece of scrap material. Wet out a 3/16″ nap paint roller by rolling it into the S-599 adhesive. This will prevent the removal of the already applied S-599 adhesive.

   Using the 3/16″ nap paint roller, create a uniform application of Armstrong S-599 adhesive by carefully rolling out the S-599 adhesive trowel ridges. Be sure the adhesive is wet and not dry to the touch before rolling.
8. Allow the recommended open time before placing the material into the adhesive.
9. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller. Clean any excess adhesive residue from the surface of the flooring using a clean white cloth dampened with water.
10. Repeat steps # 6 through #9 for the remaining half of piece #1.
11. Cut piece # 2 to the proper length.
12. **Install pieces as recommended, TM edge to TM edge or TM edge to non-TM edge**.
13. Overlap piece #2 to piece #1 approximately 1/2″ to 1″. Prepare the seam edge on the opposite side of the sheet by trimming the factory seam edge using the Armstrong S-33 Edge Trimmer.
14. Repeat steps #5 through #9 for the first half of piece #2.
15. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller (staying approximately 6″ to 12″ away from the seam area).
16. Clean adhesive residue from the surface of the flooring using a clean white cloth dampened with a neutral detergent and water.
17. Repeat steps #6 through #9 for adhering the remaining half of piece #2.
18. Using an Armstrong S-83 Recess Scriber, recess scribe all seams net (no fullness).
19. Insert a piece of scrap material beneath the scribe mark. With the excess material on the same side as your cutting hand, cut the seam holding a straight blade knife straight up and down.

20. Cut the tip of the Armstrong S-761 Seam Adhesive applicator bottle and apply a continuous 1/8″ bead of S-761 Seam Adhesive along the seam edge of piece #1.
21. Tuck the seam edge into place, forcing the Armstrong S-761 Seam Adhesive up through the seam.
22. Clean adhesive residue from the surface of the flooring using a clean white cloth dampened with a neutral detergent and water.
23. Roll the seam into place using an Armstrong S-77 Hand Roller and roll again with a 100-lb. roller.
24. Remove the burr at the seam by carefully skiving with the back of the Armstrong S-92 Knife.
25. Follow the same procedures for the remaining pieces, completing one piece at a time until the job is finished.

NOTE: When installing Armstrong Commercial Vinyl-Backed Sheet flooring, it will be necessary to smooth out the adhesive trowel ridges of the S-240 Epoxy Adhesive using the supplied 3/16″ paint roller (Refer to Chart in Section II). The purpose of this is to create a uniform application of the S-240 Epoxy Adhesive. Please refer to Steps #5 and #6.

■ Installing MEDINTECH, ROYAL, PERSPECTIVES, TIMBERLINE and TRANSLATIONS in Concentrated Static and Dynamic Load Areas with S-240 Epoxy Adhesive:

Armstrong Commercial Sheet Flooring is used in many applications where it is subjected to heavy static and dynamic loads. Some furnishings, **appliances** and equipment in certain environments may be equipped with wheels, casters, rests or other floor contact devices, which concentrate rather then distribute the load over the surface of the flooring. **Hospital patient beds** are one such example. With respect to portable furnishings and equipment, while concentrated wheel/caster loadings provide for easier mobility they can be particularly damaging to resilient flooring installations. Armstrong recommends that any furnishings or equipment be fitted with floor contact devices, which avoid concentrating weight loads.

Our experience has shown that the use of hard-setting reactive adhesives like our Armstrong S-240 Epoxy Adhesive, offer advantages and may help protect against damage, such as delamination, when used to install flooring underneath such furnishings and equipment. Depending on the application, the epoxy may only be necessary in limited areas of any particular installation such as an area immediately underneath and adjacent to the primary areas of contact with the flooring. In the case of certain heavy hospital beds, the application of the epoxy adhesive in an area that extends a minimum of one foot beyond the wheel base or footprint of the four casters (approximately 4 feet by 8 feet) may be sufficient.

1. Plan layout of the Armstrong S-240 Epoxy Adhesive so it extends approximately one foot beyond the load area. Use the recommended Armstrong full-spread adhesive in all other areas.
2. Mix entire contents of Part A and Part B together with a stirring motion while at the same time lifting from the bottom. Mix thoroughly for 3 to 5 minutes to a uniform color. **Do not over mix.** Never mix Armstrong S-240 Epoxy Adhesive on the subfloor surface.

3. **Immediately pour the entire unit of mixed adhesive onto the substrate**. **Do not leave mixed adhesive in cans as it shortens pot life and working time and may generate excessive heat.** Maximum pot life of Armstrong S-240 Epoxy Adhesive is approximately 15 minutes depending on temperature and humidity.
4. Apply Armstrong S-240 Epoxy Adhesive with the recommended trowel notching.
5. **Using the supplied 3/16″ paint roller, wet out the 3/16″ paint roller by rolling it in on a piece of scrap material that contains the Armstrong S-240 Epoxy Adhesive. This will prevent removal of already applied Armstrong S-240 Epoxy Adhesive when rolling**.
6. **Carefully roll out the Armstrong S-240 Epoxy Adhesive trowel ridges using the supplied 3/16″ nap paint roller, creating a uniform application of the Armstrong S-240 Epoxy Adhesive**.
7. After troweling and rolling of the Armstrong S-240 Epoxy Adhesive, allow 10-20 minutes open time before placing the flooring into the adhesive. **Do not allow the Armstrong S-240 Epoxy adhesive to dry completely.**
8. When using Armstrong S-240 Epoxy Adhesive in conjunction with the recommended Armstrong full-spread Adhesive, plan out the open times so that the flooring may be placed into both adhesives at the same time. Working time of Armstrong S-240 Epoxy Adhesive is 60 minutes.
9. After allowing the proper open time, carefully place the flooring into the Armstrong S-240 Epoxy Adhesive to ensure that air bubbles are not trapped beneath the flooring.
10. Within 30 minutes of the Armstrong S-240 application, roll the material using a 100-lb. roller. Starting at the center and working toward the edges, roll the material in the direction of the trowel notches and then again in the opposite direction (staying 2″ away from any seams). Do not work on newly adhered flooring except to roll; if necessary use a kneeling board.
11. Clean any adhesive residue from the surface of the flooring using a clean white cloth dampened with a neutral detergent and water. **Dried Armstrong S-240 Epoxy Adhesive cannot be removed.**
12. Repeat rolling procedure at 1 hour, and 2 hours after the initial application of Armstrong S-240 Epoxy Adhesive.
13. **Seams <u>must</u> be heat-welded**. **Wait a minimum of 10 hours before heat welding.**
14. 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.

■ **Concentrated Static and Dynamic Loads with SAFEGUARD and SAFEGUARD Design with S-230 Epoxy Adhesive:**

Product Performance under Concentrated Static and Dynamic Loads
Armstrong Commercial SAFEGUARD and SAFEGUARD Design Flooring is used in many applications where it is subjected to heavy static and dynamic loads. Some furnishings, **appliances** and equipment in certain environments may be equipped with wheels, casters, rests or other floor contact devices, which concentrate rather than distribute the load over the surface of the

flooring. **Hospital patient beds** are one such example. With respect to portable furnishings and equipment, while concentrated wheel/caster loadings provide for easier mobility they can be particularly damaging to resilient flooring installations. Armstrong recommends that any furnishings or equipment be fitted with floor contact devices, which avoid concentrating weight loads.

Our experience has shown that the use of hard setting reactive adhesives like our Armstrong S-230 Epoxy Adhesive, offer advantages and may help protect against damage, such as delamination, when used to install flooring underneath such furnishings and equipment. Depending on the application, the epoxy may only be necessary in limited areas of any particular installation such as an area immediately underneath and adjacent to the primary areas of contact with the flooring. In the case of certain heavy hospital beds, the application of the epoxy adhesive in an area that extends a minimum of one foot beyond the wheel base or footprint of the four casters (approximately 4 feet by 8 feet) may be sufficient.

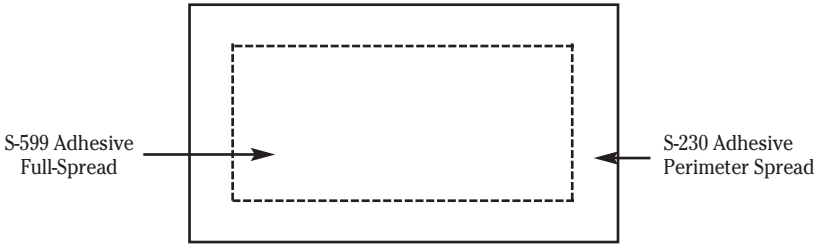
1. Recommended for areas subject to Concentrated Static and Dynamic Loads. S-230 Adhesive should only be applied to the area that will be subject to the Static/Dynamic load. Use S-599 Adhesive in all other areas.
2. Plan layout of the S-230 Adhesive so it extends approximately one foot beyond the load area. Use S-599 Adhesive in all other areas.
3. Remove the bottom of S-230 cans Part A and Part B with a can opener. Mix entire contents of Part A and Part B together with a stirring motion while at the same time lifting from the bottom. Mix thoroughly for 3–5 minutes to a uniform color. **Do not over mix**. Never mix S-230 Adhesive on the subfloor surface.
4. **Immediately pour the entire unit of mixed adhesive onto the substrate. Do not leave mixed adhesive in cans as it shortens pot life and working time, and may generate excessive heat**. Maximum pot life of S-230 is approximately 10 minutes depending on temperature and humidity.
5. Apply S-230 Adhesive by troweling the adhesive in straight lines with the S-891 Trowel using the fine notching 1/32″ deep, 1/16″ wide, 5/64″ apart. This will give any trapped air a way to escape when rolling.
6. After spreading the S-230 Adhesive, allow 10–20 minutes open time before placing the flooring into the adhesive. **Do not allow the S-230 to dry completely**.
7. When using S-230 Adhesive in conjunction with S-599 Adhesive, plan out the open times so that the flooring may be placed into both adhesives at the same time without jeopardizing the working times of both adhesives.
8. After allowing the proper open time, carefully place the flooring into the S-230 Adhesive to ensure that air is not trapped beneath the flooring.
9. Within 30 minutes of the S-230 application roll the material using a 100-lb. roller. Starting at the center and working toward the edges, roll the material in the direction of the trowel notches and then again in the opposite direction (staying 2″ from any seams). Do not work on newly adhered flooring except to roll. Use a kneeling board if necessary.
10. Clean any adhesive residue from the surface of the flooring using a clean white cloth dampened with a neutral detergent and water. **Dried S-230 Adhesive cannot be removed**.

11. If any bubbles appear, remove the flooring from the S-230 Adhesive to remove any trapped air pockets. Reposition the flooring and roll the material as outlined in Step 9.
12. Repeat rolling procedure at 1 hour, 2 hours and 3 hours after the initial application of S-230 Adhesive.
13. Continue looking for any bubbles or hollow spots by holding a floor lamp at a low angle to scan the flooring.
14. If any bubbles are noticed, lightly heat the bubbled flooring using a heat gun and roll into place using the S-77 Hand Roller. It may be necessary to heat and weigh down areas until the S-230 Adhesive has cured.
15. After the 3-hour rolling, make a final inspection of the flooring for any bubbles or hollow spots.
16. **Seams must be heat-welded. Wait a minimum of 10 hours before heat welding**.
17. Do not allow traffic on the flooring for 24 hours after installation.

■ **Perimeter Plus with S-599/S-230:**

A full-spread of S-599 in field areas with a 3″ band of S-230 Adhesive at the perimeter of the room. Recommended for SAFEGUARD and SAFEGUARD Design in areas that may be exposed to frequent water spills and/or cooler temperatures. These include entryways, areas around freezers/ refrigerator cases, and produce areas. **Must be used with SAFEGUARD Hydro.** Apply S-230 with fine notch S-51 Trowel. Recess scribe seams slightly open (1/64″) to make guiding the router easier. Use S-580 in flash cove areas.

1. Follow installation and seaming details for Full Spread with S-599 except for the adhesive at the perimeter of the room and at floor drains.
2. Remove the bottom of S-230 cans Part A and Part B with a can opener. Mix entire contents of Part A and Part B together with a stirring motion while at the same time lifting from the bottom. Mix thoroughly for 3–5 minutes to a uniform color. **Do not over mix.** Never mix S-230 Adhesive on the subfloor surface.
3. **Immediately pour the entire unit of mixed adhesive onto the substrate. Do not leave mixed adhesive in cans as it shortens pot life and working time, and may generate excessive heat.** Maximum pot life of S-230 is approximately 10 minutes depending on temperature and humidity.
4. Apply a 3″-band of S-230 around the perimeter of the room and at all floor drains. Full spread the remaining area using S-599 Adhesive. Allow the recommended open time before placing the material into the adhesive. Working time of the S-230 is approximately one hour. Do **not** allow the S-230 to dry completely.



5. Starting at the center and working toward the edges, roll the material in two directions (staying 2″ from the seam) using a 100-lb. roller. Roll within 30 minutes of adhesive application and re-roll again one 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-230 Adhesive cannot be removed.**
6. Follow the same procedures for the remaining pieces, completing one piece at a time until the job is finished.
7. Do not work on newly adhered flooring except to roll. Use a kneeling board if necessary.

■ **MEDINTECH in Environmental Conditioning Units:**

1. Maintain temperature of the room to receive the MEDINTECH at a minimum of 65°F (18°C) for 48 hours before installation, during installation, and for 72 hours after installation. Maximum temperature for installing MEDINTECH is 100°F (38°C). If these temperatures are not maintained **for the recommended period of time,** the flooring material and adhesives may not perform as they should.
2. Follow installation and seaming details for Full Spread S-599. Seams must be heat-welded.
3. Use S-240 Epoxy Adhesive at all floor drains.
4. Mix entire contents of Part A and Part B together with a stirring motion while at the same time lifting from the bottom. Mix thoroughly for 3–5 minutes to a uniform color. **Do not over mix.** Never mix Armstrong S-240 Epoxy Adhesive on the subfloor surface.
5. **Immediately pour the entire unit of mixed adhesive onto the substrate. Do not leave mixed adhesive in cans as it shortens pot life and working time, and may generate excessive heat.** Maximum pot life of Armstrong S-240 is approximately 15 minutes depending on temperature and humidity.
6. Apply a 3″-band of S-240 Adhesive around any floor drains in area of installation.
7. Roll the material in two directions using a 100-lb. roller. Roll immediately after placement of flooring and re-roll again one 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-240 Adhesive cannot be removed.**
8. Immediately after installation is complete, apply a bead of silicone caulk along the top of the cap strip and onto the wall.
9. After the MEDINTECH has been installed and allowed to condition for 72 hours as outlined in Step #1, gradually lower the temperature of the room over a period of three days. The temperature of the room should **never** go below 34°F (1°C).
10. Do not allow traffic on the flooring for 24 hours after installation.
11. Flooring should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.

■ **PERSPECTIVES Tile Installation:**

1. Where possible, plan layout so tile joints are 6″ from any joint in the substrate.
2. PERSPECTIVES Tile can be installed in block/tile fashion or by staggering the tile joints by one-half tile.

PERSPECTIVES Tile

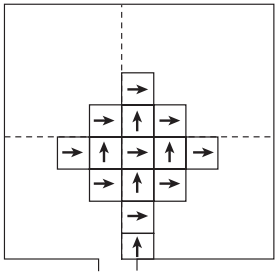


Fig. 1 – Block/Tile

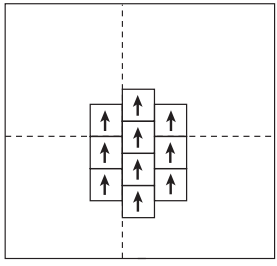


Fig. 2 – Staggered

3. When installing the PERSPECTIVES Tile block/tile fashion, quarter-turn every other tile during installation. See Figure 1.
4. When installing PERSPECTIVES Tile by staggering the joints, the tile should be run in the same direction. See Figure 2.
5. Center and square off the room by measuring and snapping chalk lines dividing the room into quarters.
6. Adjust the chalk lines to keep the border tile size half the original tile size or more. Snap chalk lines on the subfloor where the last full field tile will fall. **Dry fit border tile before applying adhesive.**
7. Remove only as many tiles from the carton as can be installed within four hours.
8. Starting in the center of the room, apply the S-599 Adhesive up to, but not covering, the chalk lines.
9. Apply the adhesive in two- or three-foot bands depending on your reach. Do **not** apply more adhesive than you can cover within 20 minutes. **Do not allow the adhesive to dry completely.**
10. Allowing a 10-minute open time will minimize tile shifting and adhesive squeeze up. Fitting the border tile tightly will reduce tile shifting.
11. Tile must be placed into the adhesive while it is still wet (see adhesive section above for open times). Apply only enough adhesive in a given area so that the tiles may be installed into wet adhesive. **Any adhesive that has skinned over or dried must be removed and replaced with fresh adhesive.**
12. Install the first two rows of field tile first up to and along the chalk lines to ensure that the tile are positioned precisely along the chalk line.
13. You may use masking tape to tape diagonally across the tile joints to help lock the tile into place and to help close any openings in the tile joints.

14. Roll immediately in both directions with a 100-lb. roller.
15. Any adhesive on the face of the tile should be removed immediately using a clean white cloth dampened with a neutral detergent and water.
16. Install the remaining rows and border tile following Steps 8 through 15.
17. Do not work on newly adhered flooring except to roll. Use a kneeling board if necessary.
18. When installing vinyl-back tile in concentrated static and dynamic load areas, follow the installation procedures listed above using S-240 Epoxy Adhesive. Follow the recommended open times and trowel notchings for S-240.

Precautions:

- Do not install any vinyl-backed flooring over existing asphalt tile or any adhesive residue.
- Do not install any vinyl-backed products over existing on-grade or below-grade tile.
- When installing PERSPECTIVES, SAFEGUARD, SAFEGUARD Design, SAFEGUARD Hydro, TIMBERLINE and TRANSLATIONS Sheet flooring, regardless of the substrate, the S-599 Adhesive must be allowed to set open until dry to the touch.
- When installing PERSPECTIVES, TIMBERLINE or TRANSLATIONS sheet products in a residential area, seams may be coated using the S-564 Low Gloss Seam Coating Kit. This is **NOT** an option for commercial installations.
- For TIMBERLINE, position pieces so that the ends of the planks are off-set at least 3″ to 6″.
- Lead or brass surfaces must be abraded and then leveled with a 1/8″ thickness of S-194 mixed with the S-195. When this has dried prime with the S-185 then install the vinyl-back floor using the S-599 adhesive.
  - Seams: Refer to Section VIII.
  - Heat Welding: Refer to Section VIII.
  - Flash Coving: See Section IX.