



Installation Instructions

AirStep Cloud Nine™ & Basis™

Congoleum®

INSTALLATION INSTRUCTIONS for AIRSTEP PLUS, AIRSTEP CLOUD NINE and BASIS

AirStep Plus, AirStep Cloud Nine and AirStep Basis have differing constructions and installation methods. Refer to the specific installation instructions for the product being installed.

AirStep Plus, with UltraTec construction, is guaranteed not to curl. This construction allows the flooring to be installed by the *Your Choice Plus Installation System* which includes the fully adhered, perimeter fastened and loose lay installation methods.

AirStep Cloud Nine and Basis are constructed with a fiberglass inner liner and a dense cushioned backing that resists curl and shrinkage and can be installed either fully adhered or loose laid. Cloud Nine and Basis should never be installed perimeter fastened.

With these installation choices, AirStep products address a wide variety of job conditions.

Installation Method	AirStep Plus	AirStep Cloud Nine	AirStep Basis
Fully Adhere	Yes	Yes	Yes
Perimeter Fasten	Yes	No	No
Loose Lay	Yes	Yes	Yes
Adhesive			
Fully Adhered	AS-01	AS-01	AS-01
Perimeter Fastened	AS-01	N/A	N/A
Seam Sealer	Congoleum SU106 Pre-treat seam with 3M [®] pad	Congoleum SU106	Congoleum SU80 or SU92

The best method for a particular job depends on the flooring selection, subfloor conditions and room size. For example, the fully adhered method is recommended where the subfloor is smooth, structurally sound and free of movement, in a variety of applications including complex room layouts or where net fitting or coving is required.

The perimeter fastening and loose lay methods provide subfloor masking benefits to allow installation over a greater variety of surfaces that might otherwise be unsatisfactory for a fully adhered application.

The loose lay method for Airstep Cloud Nine and Basis is recommended for smaller, less complex room layouts with no more than one seam on wood subfloors and where trim can be installed around the entire perimeter. There are no seam or size restrictions when AirStep Cloud Nine and Basis are installed over concrete. The loose lay method for AirStep Plus does not have those restrictions. Refer to Loose Lay instructions for room size and seam limitations.

The perimeter fastening method is recommended for AirStep Plus only. It can be used for most all applications and provides not only subfloor masking benefits, but it also provides the option to fit flooring net where it is not appropriate to install trim.

General Information

Recommended Use

- Residential applications on all grade levels
- Interior use in dry, heated areas
- Do not install over ramps, in showers or other wet areas

Installation Temperature

Condition the room(s) and all flooring materials at a constant

temperature between 65°F (18°C) and 85°F (29°C) for 48 hours before, during and 48 hours after installation. Thereafter maintain temperatures between 55°F (13°C) and 100°F (38°C).

Handling and Storage

Keep flooring rolled face out, wrapped tightly around a rigid core until ready for installation. Avoid distorting the flooring. Always store rolls on a continuous flat surface. Do not stack other rolls or heavy objects on flooring.

Preparing the Area

- Remove all furniture and appliances from the room.
- Remove all trim and transition moldings.
- Undercut door trim to allow flooring to slide under freely
- Prepare the subfloor and sweep or vacuum thoroughly to remove all loose dirt and debris.

Flooring Layout

- Unroll the flooring using care to prevent distortions and position it squarely in the room to achieve the best design layout.
- Make relief cuts down to the floor/wall juncture at inside and outside corners.
- Allow the flooring to relax and flatten. If necessary use a soft bristle push broom to remove any distortions or air pockets.

General Subfloor Information

All subfloor surfaces must be clean, dry, smooth and free of reagents or contaminants that can stain flooring or interfere with adhesion.

Wood Floors must be structurally sound and free of movement with at least 18" (46 cm) of well-ventilated air space below. Sand joints smooth and set fasteners 1/32" (.8 mm) below the surface. Fill joints wider than 1/32" (.8 mm). Rough, weathered or damaged subfloor panels must be sanded smooth or covered with a suitable underlayment panel.

Flooring installed directly over single layer wood subfloors present a higher risk for joint telegraphing, protruding nail heads or fasteners and bottom up staining from paint overspray, spills, subfloor construction adhesive, coated fasteners or other contaminants. The subfloor panel must be a Sturd-I-Floor rated panel with a sanded Face and Exposure 1 or Exterior classification. Congoleum will not assume responsibility for claims related to the subfloor material regardless of the underlayment or subfloor material used.

Concrete Floors must be clean, dry and smooth. Level, rough or uneven surfaces, cracks and control joints with a portland cement-based patching compound. Do not install flooring over expansion joints. Moisture vapor emissions must not exceed 3-lbs./1000 ft.²/24 hrs when tested with a calcium chloride test kit.

Resilient Floors must be single layer, fully adhered over an approved subfloor and securely bonded. Remove all wax, floor finish or polish prior to installation. Do not install AirStep or AirStep Plus over soft, heavily cushioned floors, floors with a

Subfloors and Preparation

Subfloor Construction Materials	Comments	Fully Adhered	Perimeter Fastened For AirStep Plus Only	Loose Laid	Notes
Wood	• Double layer plywood construction over joist or trusses	Yes	Yes	Yes	Subfloor must be smooth, solid and free of movement set fasteners below the surface.
	• Single layer Sturd-I-Floor 23/32" (18 mm) or heavier installed over joists or trusses, 16" (41 cm) or 19.2" (49.2 cm) OC	Install wood underlayment	Yes	Yes for AirStep Plus only	
	• Hardwood or Strip wood installed over wood subfloors	Install wood underlayment			
	• Hardwood floors installed over concrete	No	No	No	Remove hardwood and prepare concrete.
Underlayment	• APA underlayment grade plywood and other wood veneer underlayments that are recommended for resilient flooring	Yes	Yes	Yes	Weather damaged or rough surface materials must be sanded smooth or covered with a recommended underlayment. Fill gaps wider than 1/32" (.8 mm).
	• Oriented Strand Board (OSB)	Install wood underlayment	Yes	Yes for AirStep Plus only	
	• NPA-rated Particleboard	Install wood underlayment	Yes	Yes for AirStep Plus only	
Concrete	• On, above and below grade level	Yes	Yes	Yes	Moisture vapor emissions should not exceed 3 lbs.
	• Radiant heat floors not to exceed 85°F	Yes	Yes	Yes	
Gypsum Topping	• Minimum 2000 PSI Compressive Strength	No	Yes	Yes	Fill depressions and cracks wider than 1/32" (.8 mm).
Lightweight Concrete	• Minimum 100-pound density Minimum 3000 PSI Compressive Strength				
Resilient Floor	• Smooth surface resilient sheet and tile flooring	Yes	Yes	Yes	Must be single layer of flooring, fully adhered and well bonded.
	• Textured surface resilient sheet and tile	Prepare with embossing leveler or new underlayment			
	• Do not install over soft, heavy, cushioned floors, floors with a cushioned backing, asphalt tile or tile installed below grade level.	Remove or cover with new underlayment as appropriate			Follow Recommended Work Practices.
Ceramic and Stone	• Ceramic, marble and granite	Yes	Yes	Yes	Apply skim coat(s) to level the surface.

cushioned backing, asphalt tile, self adhered tile or tile installed below grade level.

⚠ WARNING: EXISTING IN-PLACE RESILIENT FLOOR COVERING AND ASPHALTIC ADHESIVES. DO NOT SAND, DRY SCRAPE, DRY SWEEP, 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 in-place 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 removal and disposal of material. See current addition of the Resilient Floor Covering Institute (RFCI) publication *Recommended Work Practices for the Removal of Resilient Floor Coverings* for instructions on removing all resilient floor covering structures or contact your retailer or Congoleum Corporation Installation and Technical Office (609) 584-3805.

AIRSTEP CLOUD NINE AND AIRSTEP BASIS

Fully Adhered Method

Use Congoleum AS-01 Adhesive for all approved fully adhered installations.

Follow recommendations listed under General Information. Trim the flooring to fit walls and other vertical surfaces. AirStep can be fit net in areas where no finished trim will be installed. Do not fit the floor tight. It is best to allow a 1/16" (1.6 mm) space in areas where trim will be installed.

To adhere the floor, lap or tube one-half of the sheet back using care to avoid bending or creasing it. Spread adhesive uniformly over the exposed subfloor with a 1/16" x 1/32" x 1/32" (1.6 mm x .8 mm x .8 mm) notched trowel. The adhesive should be spread in a straight line up to the edge of the sheet.

On nonporous surfaces, allow adhesive to set for 15 to 30 minutes or until tacky dry before positioning the sheet.

On porous surfaces lay the flooring into the wet adhesive immediately after spreading it. Carefully, push the flooring back into the adhesive with out lifting it, to avoid trapping air under it. Immediately and prior to foot traffic, roll the flooring in both directions with a 100-pound or heavier three-section roller

starting from the center and working out toward the edges. Repeat the process on the other side of the sheet.

Loose Lay Method

Installations over wood subfloors requiring more than one seam must be fully adhered. There are no seaming limitations over concrete subfloors.

Follow recommendations listed under General Information. Sweep or vacuum the floor thoroughly to remove all dirt and grit. Unroll flooring and position it squarely in the room using care to avoid distortions. Trim the floor, allowing a 1/8" (3.2 mm) to 1/4" (6.4 mm) space between the edge of the sheet and the walls and other vertical surfaces. Trim flooring long at all door trim and slide it under to achieve a finished appearance.

All finish trim and transition moldings must be installed so they do not bind or restrict the flooring. Shoe molding, quarter-round and other trim should be positioned lightly on the floor and fastened to the wall, not to the subfloor. Transition moldings should be installed allowing a 1/8" (3.2 mm) space between the edge of the sheet and the fasteners. Do not drive fasteners into the flooring. To prevent forced air from "pillowing" the loose-lay flooring, we recommend applying duct tape to the inside of the heat duct and about 1/2" onto the flooring, making sure that the register cover hides the tape.

Bathroom Installations - Place a strip of acrylic double-face tape at the base of a bath tub or shower. Fit the flooring 1/16" (1.6 mm) to 1/8" (3.2 mm) away. Secure the edge of the sheet in the tape and seal the edge with silicone caulking. Bathrooms that require more extensive net fitting should be installed fully adhered.

AIRSTEP PLUS

AirStep Plus features the Your Choice Plus Installation System and can be installed fully adhered, loose laid or perimeter fastened.

Fully Adhered Method

Use Congoleum AS-01 Adhesive for all approved fully adhered installations.

Follow recommendations listed under General Information. Unroll the flooring and trim it to fit walls and other vertical surfaces. AirStep Plus can be fit net in areas where no finished trim will be installed. Do not fit the floor tight.

To adhere the floor, lap or tube back one-half of the sheet using care to avoid bending or creasing it. Spread or roll adhesive uniformly over the exposed subfloor in a straight line up to the edge of the sheet, with no voids, puddles or thin spots.

On porous surfaces, apply the adhesive with a 1/16" x 1/32" x 1/32" (1.6 mm x .8 mm x .8 mm) notched trowel and lay the flooring into the wet adhesive immediately after spreading it.

On nonporous surfaces apply the adhesive with a 1/4" nap paint roller and allow it to set for 15 to 30 minutes or until tacky dry before positioning the sheet. When using a paint roller, the adhesive should be applied to the subfloor in a light stippled pattern at a rate of 300 sq. ft. /gal.

Note: It is important to use a paint roller to apply adhesive and allow it to tack up over nonporous surfaces, i.e. existing resilient flooring with or without embossing leveler and terrazzo. Excessive adhesive application or application with

a trowel on nonporous surfaces can result in adhesive displacement and lead to permanent indentation problems.

Carefully, push the flooring back into the adhesive without lifting it, to avoid trapping air under it. Immediately and prior to foot traffic, roll the flooring in both directions with a 100-pound or heavier three-section roller starting from the center and working out toward the edges. Repeat the process on the other side of the sheet.

Loose Lay Method

Follow recommendations listed under General Information. Sweep or vacuum the floor thoroughly to remove all dirt and grit. Unroll flooring using care to avoid distortions. Make relief cuts to position it in the room. Trim the floor allowing a 1/16" (1.6 mm) space between the edge of the sheet and the walls and other vertical surfaces. Trim flooring long at door trim and slide it under to achieve a finished appearance.

All finish trim and transition moldings must cover the edge of the flooring by at least 3/8" and must be installed so they do not bind or restrict the flooring. Shoe molding, quarter-round and other trim should be positioned lightly on the floor and fastened to the wall, not to the subfloor. Transition moldings should be installed allowing a 1/8" (3.2 mm) space between the edge of the sheet and the fasteners. To prevent forced air from "pillowing" the loose-lay flooring, we recommend applying duct tape to the inside of the heat duct and about 1/2" onto the flooring, making sure that the register cover hides the tape.

Bathroom Installations - The flooring should be secured to the subfloor in front of tubs, showers or other wet areas. Place a strip of thin, acrylic double-face tape at the base of a bath tub or shower. Secure the edge of the sheet in the tape and seal it with a silicone caulking. Bathrooms that require more extensive net fitting should be installed perimeter fastened or fully adhered.

Perimeter Fasten Method

The perimeter fasten method is recommended for installing AirStep Plus only. **Do not install AirStep Basis or Cloud Nine by the perimeter fasten method.**

Follow recommendations listed under General Information. Sweep or vacuum the floor thoroughly to remove all dirt and grit. Unroll flooring using care to avoid distortions. In long narrow areas or in more intricate room layouts, place a string over the grout line and check to make sure the floor is straight and not bowed. Adjust the flooring to remove bow if necessary. Where finished trim will be installed, fit the floor with a 1/16" (1.6 mm) space between the edge of the sheet and the walls and other vertical surfaces. Where no finished trim will be used, fit the floor flush or net. Tight or compression fitting is not recommended.

After fitting the floor to the room and flattening all distortions, fasten the entire perimeter with adhesive or staples (on wood floors only). If using a combination of adhesive and staples, complete the adhered areas first.

Adhesive is required under all seams, at net fitted areas, in front of cabinet toe spaces, at fixtures and floor vents and over concrete and other hard surfaces.

AS-01 Adhesive Application - Carefully lay back the edge of the floor using care to avoid creasing it.

On porous surfaces, apply a 4" (10.2 cm) band of AS-01 adhesive with a 1/16" x 1/32" x 1/32" (1.6 mm x .8 mm x .8 mm) notched trowel and lay the flooring into the wet adhesive immediately after spreading it. Thoroughly roll the adhered area with a steel hand roller.

On nonporous surfaces, apply AS-01 adhesive with a 4 inch wide, 1/4" nap paint roller in a light stippled pattern and allow it to set for 15 to 30 minutes or until tacky dry before laying in the sheet. Thoroughly roll the adhered area with a steel hand roller.

Staples can also be used to fasten the perimeter in areas where trim will be installed on installations over wood subfloors. The minimum staple size is 1/2" (12.7 mm) crown with a 3/8" (9.5 mm) leg. Use the longest staple length that can be seated tightly to the floor surface. Staple every 3" (7.6 cm) along the wall, 1/4" (6.4 mm) away from the edge of the sheet. After the floor has been fastened, install trim to cover staples.

Seaming

	AirStep Plus	AirStep Cloud Nine	AirStep Basis
Adhesive	AS-01	AS-01*	AS-01*
Seam Sealer	SU106	SU106	SU80 or SU92
Method	Pre-treat seam with green 3M pad, insert applicator into seam cut	Insert applicator into seam cut	Insert applicator into seam cut

* GlassTac Acrylic Seam Tape can be used under the seam in lieu of adhesive on loose lay installations. **Do not use GlassTac Acrylic Seam Tape for AirStep Plus seams.**

Place seams:

- In the least conspicuous and least traveled area in the room.
- A minimum of 6" (15.4 cm) away from parallel underlayment joints
- At least 6" (15.4 cm) away from seams in existing sheet flooring or within the center of a row of tile

Matching Designs

Always install sheets in the order they were cut from the roll, starting with the first sheet. While AirStep Cloud Nine and Basis are produced 12' (30.8 cm) wide, some of their designs have only a partial design unit along one side of the sheet. When seamed, the sheet is overlapped and the partial design is trimmed off back to the next grout line. The amount of *Overlap* that should be considered as waste is listed in the Seaming Specifications Chart.

AirStep Plus is manufactured 12' (30.8 cm) wide with selvage edges on both sides.

Seaming Specifications

Reverse Sheets - Install sheets with the same edges together by turning the sheet 180°.

Do Not Reverse - Install Sheets with opposite edges placed together.

When estimating flooring, add 3" (7.7 cm) to the length of the room dimension for the first sheet and 3" (7.7 cm) plus the design match for all subsequent sheets.

An actual and economy design match have been listed to provide options for producing the best appearance. The economy match does not necessarily repeat exactly but it generally

matches very well; it is great for fill pieces and in less conspicuous areas, while an actual match may be more appropriate for a highly conspicuous area.

Seaming Procedure

Install the first sheet leaving a 12" (30.8 cm) area unadhered along the entire length of the seam (fully adhered floors). Position the second sheet in the room, overlap the selvage edges and carefully match the design. (For fully adhered floors) glue the second sheet leaving a 12" (30.8 cm) area unadhered at the seam for a total dry zone of 24" (61.5 cm).

All seams in AirStep and AirStep Plus must be cut using the overlap and double-cut method to ensure an accurate seam cut. The straight edge and butt and recess scribe method will not produce an acceptable seam.

Place a 3" (7.7 cm) wide strip of scrap flooring under the seam when cutting seams in AirStep Plus only. Do not use a scrap strip under AirStep Cloud Nine or Basis.

Cut the seam in the center of the embossed line when seaming designs with grout lines that are wider than 5/32" (4 mm). Cut the seam up on the shoulder of the grout line in the land area when seaming designs with narrower grout lines.

Always cut the seam with a sharp utility knife and steel straight edge. Hold the knife at a 90° angle from the floor and apply sufficient pressure to cut through both sheets in a single pass. Use caution to avoid cutting into the subfloor surface.

Adhering the Seam

Fully Adhered Floors

Turn the seam edges back and apply AS-01 Adhesive over the entire dry zone using the recommended notched trowel (or a paint roller when installing AirStep Plus over nonporous surfaces). Allow the adhesive to set up for a few minutes over porous surfaces. Allow the adhesive to set up about 15 to 30 minutes (until tacky dry) over non-porous surfaces.

Lay the floor into the adhesive using extreme care to prevent scraping or squeezing adhesive into the seam cut. If this should occur, lift the edges of the sheet and clean any adhesive from the edge with a clean damp cloth and reposition the sheets. Roll the seam area with a 100-pound, three-section roller and level the seam edges with a steel hand roller.

Perimeter Fasten and Loose Lay Floors

Seams in AirStep Cloud Nine and Basis loose laid floors can be fastened with GlassTac Seam Tape or a 6" (15.4 cm) wide band of AS-01 adhesive. Seams in AirStep Plus loose laid or perimeter fastened floors must be fastened with a 6" (15.4 cm) wide band of AS-01 adhesive. **Do not use GlassTac Seam Tape on any AirStep Plus seam.**

To secure the seam, turn back one edge and mark the subfloor with a pencil along the other edge using care to avoid writing on the edge of the sheet. Turn the second sheet back and apply GlassTac Seam Tape or a 6" (15.4 cm) wide band of adhesive centered over the pencil line at the seam. Follow the instructions on the adhesive label for recommended set up time depending on the subfloor porosity. For AirStep Plus seams on nonporous subfloors, be sure to apply the AS-01 adhesive in a 6" wide band using a 1/4" nap paint roller and allow the adhesive to tack up.

Lay the floor into the adhesive using extreme care to prevent scraping or squeezing adhesive in to the seam cut. If this should occur, lift the edges of the sheet and clean any adhesive from the edge with a clean damp cloth and reposition the sheets.

When using tape to secure the seam, position the tape centered over the pencil line. Remove the release liner and position the seam edges in the tape to produce a net seam. Roll the seam with a steel hand roller to level the edges and embed the backing into the adhesive or tape.

Sealing Seams

Seal all seams using the recommended seam sealer.

Basis - SU80 or SU92 Seam Sealer

Cloud Nine and AirStep Plus - SU106 Seam Sealer

AirStep Plus features Scotchgard Protector. Remember to pre-treat the seam using the dowel and green pad included in the SU106 kit prior to applying seam sealer.

Refer to the seam sealer label for instructions on sealing the seams. Keep traffic off seams for a minimum of 16 hours or until fully cured.

Completing the Job

- Install trim and transition moldings. Remember to follow special instructions for loose laid floors.
- A high quality silicone caulking must be used to seal the edge of the flooring in wet areas, in front of tubs, showers, sinks and around drains.

- Return all furniture and appliances to the room. Always use strips of hardboard to slide or roll all appliances and furniture back into place.

Repair

Surface cuts and punctures are easily repaired by applying the recommended seam sealer to the damaged spot.

More extensive damage can be repaired by replacing the damaged area with a patch.

Obtain a matching piece of flooring material. Cut a section of the floor slightly larger than the damaged spot. (Remove complete design units when possible)

Position the replacement piece directly over the damaged area and accurately match the design.

Secure the replacement piece with tape on all sides.

Use a sharp utility knife and steel straight edge to cut the seams on all sides of the repair piece.

Cut the seam in the center of a grout line or in a dark color of the floor if possible

Hold the utility knife at a 90° angle to the floor and cut through both pieces in a single pass.

Remove the damaged area.

Install the repair piece using AS-01 adhesive or GlassTac Seam Tape to secure the repair piece.

Seal the seams with the recommended seam sealer following label instructions.

Seaming Specification Chart

Pattern Number	Pattern Name	Reverse Sheets	Economy Match		Actual Design Repeat	Seam Match Overlap
			Length	Width		
CLOUD NINE™ Adhesive: AS-01 Seam Sealer: SU106						
46601 - 46603	Brushed Stone™	No	Random	Random	39.4" (100cm)	None
46610 - 46612	Classic Inset™	No	13.1" (33.3cm)	13.1" (33.3cm)	39.4" (100cm)	13.1" (33.3cm)
46620	Domino™	No	19.7" (50cm)	19.7" (50cm)	19.7" (50cm)	6" (15.4cm)
46630 - 46633	Sandstone™	No	13.1" (33.3cm)	13.1" (33.3cm)	39.4" (100cm)	13.1" (33.3cm)
46640 - 46642	Stone Shadow™	No	6.5" (16.5cm)	6.5" (16.5cm)	39.4" (100cm)	6.5" (16.5cm)
46650 - 46651	Barnboard™	No	10" (26cm) Random	5.5" (14cm)	39.4" (100cm)	3.25" (8.3cm)
46660 - 46663	Driftwood™	No	10" (26cm) Random	4" (10.3cm)	39.4" (100cm)	2.5" (6.5cm)
BASIS® Adhesive: AS-01 Seam Sealer: SU80 or SU92						
33900 - 33902	Stone Walk™	No	5" (13cm)	5" (13cm)	39.4" (100cm)	None
33910 - 33912	Maple™	No	10" (26cm) Random	2.75" (7cm)	39.4" (100cm)	None
33920 - 33921	Slate Stone™	No	9.9" (25.3cm)	9.9" (25.3cm)	39.4" (100cm)	6.5" (16.5cm)
33930 - 33931	Pebbles™	Yes	None	None	39.4" (100cm)	None
AIRSTEP PLUS Adhesive: AS-01 Fully Adhered Seam Sealer: SU106						
58000 - 58002	North Star™	No	18" (46.2cm)	36" (92.3cm)	18" (46.2cm)	None
58010 - 58011	Satin Cloud™	No	27" (69.2cm)	72" (1.83m)	54" (1.37mm)	None
58020 - 58025	Starlight™	No	27" (69.2cm)	26.18" (67cm)	54" (1.37mm)	None
58030 - 58034	Swirlstone™	No	13.5" (34.6cm)	39.3" (100cm)	54" (1.37mm)	None
58050 - 58052	Unity™	No	27" (69.2cm)	36" (92.3cm)	27" (69.2cm)	None
58060	Check™	No	18" (46.2cm)	18" (46.2cm)	18" (46.2cm)	None

