

Altro Transflor installation and maintenance





Altro Transflor

performance in motion

With over 50 years experience in the international transport industry, Altro Transflor is renowned as one of the world's leading brands of high performance transport flooring.

Our product focus keeps passenger comfort and safety at the forefront of design and engineering. We deliver solutions incorporating slip resistance for the life of your transport and compliance with the latest international smoke, fire and toxicity regulations.

Our products are backed by Altro warranties, so that you can rest assured that they won't let you down.

Ride don't **slide** with **Altro Transflor**.

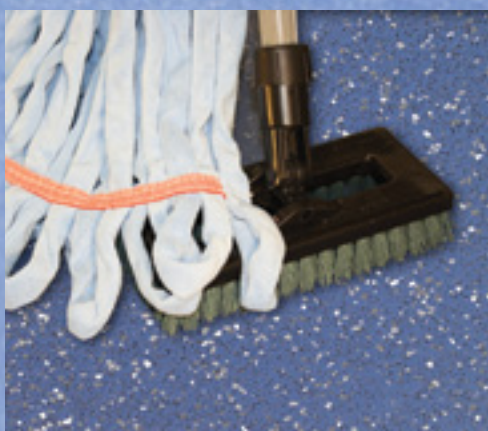


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Installation of Altro floor covering should follow the instructions detailed in this guide. Failure to correctly install Altro floor covering will void the Limited Product Warranty.

1. Product Overview

Altro Transflor is a range of floor covering products especially engineered for the requirements and demands of transit interiors.

Altro Transflor safety flooring is a unique combination of vinyl, quartz aggregates, aluminum oxide, and silicon carbide, with a multi layered fiber reinforcement for controlled stability.

The underfoot safety of any floor is dependent on the coefficient of friction between the floor surface and the sole of the shoe. The performance of Altro safety flooring relies on the way in which the vinyl compresses under load, leaving the abrasive grain protruding above the surface to provide a reliable grip in both wet and dry conditions. This also means it remains easy to clean.

Altro Easyclean technology allows for a lifetime of easy to care for flooring systems.

It is important to remember that a correct installation also plays a vital part in safety underfoot. Failure to install Altro Transflor correctly may affect the limited product warranty.



2. Storage and handling

- When receiving your shipments of Altro Transflor, **it is recommended that the rolls be stood up on end for storage.** The rolls are packaged laying down for freight purposes and should not be stored in this position.
- Inspect all rolls and ensure no visible damage has occurred during shipping. Contact Altro immediately with any questions.
- When storage temperature are below 60°F, Altro floor covering must be moved to a warmer place and allowed to reach this temperature before installing the product. The room temperature must not be below 60°F and the optimum air temperature should be between 60°F - 80°F. The rolls must be acclimated to the environment in which it will be installed in.
- Rolls of Altro floor covering must be stored in dry conditions and stood upright on a level floor. If stacked horizontally, there is a risk of “flattened areas” developing which can lead to installation difficulties.



- Safety precautions should be taken to secure rolls standing on end to prevent them from accidentally falling.
- If storing precut kits of Altro Transflor keep in original boxes and do not stack.
- The Altro Transflor incorporates colored quartz aggregate, silicon carbide particles and aluminum oxide in the material. Eye protection should be used during cutting and grooving procedures.



3. Material inspection

Do not install flooring with visible defects.

- We recommend the flooring be unrolled and laid flat allowing the material to relax before the flooring is installed. While the flooring is laid out, inspect the roll for any freight damage, scratches or tears from mishandling and any visual defects that may exist.
- Ensure that the floor style and color are correct and that there is enough flooring to complete the job.
- All pieces should be from the same dye lot (batch) for each vehicle. If you are unsure of the batch number, you must check and confirm the color match from sheet to sheet before cutting and installing the product. Turn flooring sheets to get the best match if needed. If there is any shade variation don't install and call Altro.
- Inspect stair trims and moldings (nosing) and install them in the correct order. Some stair nosing and trim need to be installed before the flooring is applied. Call Altro's Technical Department if you are unsure 800.382.0333.



4. Existing flooring removal

- When changing out an existing floor covering, remove all seats, seat track, trim and any hardware that may interfere with the replacement of the flooring.
- It is a general recommendation to always remove existing floor coverings. If it is decided to install the new floor over an old product, we would caution that this could compromise the integrity of new floor covering and we could not assume the liability for the outcome. For further information on specific conditions or questions, please contact Altro's Technical Department at 800.382.0333
- Remove all vertical sections first. Once this is completed, you can begin in the rear of the vehicle and pull the flooring out towards the front of the vehicle. This will eliminate most of the debris sticking to old adhesive. If the removal is difficult, cut the floor covering into 3-6" strips to make pulling easier (heat may also be helpful in some cases to soften the adhesive before you pull the flooring up, this can be achieved by a hot air blower or a heat blanket).
- We caution the use of adhesive removers on absorbent surfaces such as plywood. Ensure the adhesive remover can be neutralized after use as it can soak into the absorbent sub floor and have a negative effect on the new adhesive's performance.



5. Sub floor preparation

Vehicle Inspection

Before installing do a vehicle inspection. Check that the sub floor is fastened properly and that any movements between the panels are eliminated and all heavy overhead work is completed.

Substrate Preparation

The importance of high quality installation techniques and correct preparation cannot be overemphasized. The overall effectiveness and longevity of the flooring depends largely on good sub floor preparation and correct installation of the substrate panels.

The areas to receive floor covering are to be weather-tight and must be adequately illuminated to allow for proper installation of the flooring. In all cases, irrespective of the type of sub floor surfaces (plywood, composite, metal):

- Ensure the sub floor is clean, dry, and free of all contaminants etc.
- Check bolt, screw, or anchor pattern on sub floor and improve if necessary.



- Grind down any welds or fastener heads that may protrude from the surface.



- Fill all holes, gaps, fastener heads and joints with a quality body filler.
- Sand and level the sub floor removing any loose paint and debris.
- Ensure the sub floor is smooth, flat and free of any irregularities that may telegraph through the new floor covering. Resand as needed.
- Sweep sub floor free of any dust and debris which may interfere with bond. Vacuum if necessary.
- Wipe floor clean with denatured alcohol and a lint free cloth to remove all contaminants.

6. Layout and cutting

Layout and cutting

- Lay flooring out on a flat, clean surface and allow material to 'relax' at the recommended installation temperature. This makes it easier to install.
- Review floor plan or drawings and establish seam placement. We recommend seam placement to be under seating and out of the main traffic areas when possible.
- Cut pieces to necessary width and length, allowing about 1" or 25mm extra at each end for trimming. Where the floor area dimensions are consistent, a template may be used when cutting to size to speed up the process.
- Cut the flooring into desired sizes using a straight edge and a utility knife. It is important to ensure that all edges that will later be used to make seams, be cut straight and uniform.
- Once the pieces are cut to size, position them into the vehicle to ensure proper fit.



Material can be cut in place by freehand methods once inside the vehicle using a utility knife with a hook or concave blade, or can be patterned scribed using a template before bringing the material into the vehicle.



7. Adhesives

Altro Adhesives

We recommend that Altro adhesives be used whenever possible. These adhesives are specially formulated to work with Altro Transflor and offer the best performance. It is the sole responsibility of the installer to determine the suitability of another brand or type of adhesive. Ensure that compatibility tests have been performed with the adhesive manufacture prior to application.

When using all types of adhesive, local environmental laws must be observed. It is the responsibility of the applicator to determine such laws prior to proceeding. It is also the responsibility of the installer to determine the suitability of any adhesive and its long term performance prior to the installation.

Altro offers the following adhesives:

Ecofix 25 is water dispersed, non-flammable acrylic adhesive developed for the installation of Altro Transflor over an absorbent substrate like plywood. It is a trowel applied adhesive and is offered in 1 and 4 gallon pails.

Altrofix 30, a two-part polyurethane adhesive, is recommended for the installation of Altro Transflor in areas subjected to excessive topical moisture and heat. This adhesive is commonly used on non-absorbent surfaces such as metal and composites substrates. This is a trowel applied adhesive that is offered in ½, 1 and 2 gallon units and is not recommended for vertical surfaces.

Helmiplast 8165 is a solvent based contact adhesive that can be used when installing step treads, stair nosing's, vertical surfaces, coving and areas where a quick tack is required. This product works on most all absorbent and non-absorbent surfaces and can be applied with a brush or a roller. Please consult Altro's Technical Department for further information at 800-382-0333.



Water based acrylic adhesives are typically trowel applied to the substrate only. Coat the sub floor using a notched trowel, the notches of which should comply with the adhesive manufacturer's instructions on the container. Observe the adhesive manufacturer's instructions regarding "open time", taking into account atmospheric temperatures, humidity and sub floor porosity.

- Cut flooring to size and dry fit into place.
- Carefully fold the flooring back from end to end exposing enough of the sub floor to be troweled, being careful not to shift the flooring.
- Sweep area as dirt may have been tracked in or debris may be present from cut and fitting the flooring.
- Apply adhesive to the exposed sub floor only, using the appropriate size trowel.
- Allow appropriate open time (approximately 15-20 minutes) for adhesive to become tacky.
- Place flooring into wet adhesive and press down firmly to ensure adhesion over the whole area.
- Roll thoroughly with a 100 lb. roller ensuring that all air is extracted.
- Wipe up any excess adhesive with soap and water dampened rag.
- Repeat this process with the second half of the floor covering.

Contact adhesive

Contact adhesive is used to compliment the other types of adhesives and is typically used to secure step nosing, step treads, flash coving and smaller detailed areas and not an entire floor installation.

Proper ventilation of the work area is essential where these solvent-based adhesives are used. In addition, there must be no flames, incandescent or similar heaters or other ignition hazard, such as lighted cigarettes, which could ignite the fumes from these highly-flammable products. In all cases it is advisable to follow the adhesive manufacturer's health and safety recommendations.

- Cut Altro flooring to size and dry fit into place.
- Gently remove the flooring and lay upside down on a protected surface.
- Apply the adhesive to the sub floor and the exposed underside of the Altro Transflor with a 1/4" – 3/8" nap paint roller. Normal rates of application range from 3-6 sq. /liter (121 sq. ft. – 246 sq. ft. per gallon), depending on manufacturer's instructions and the porosity of the substrate.

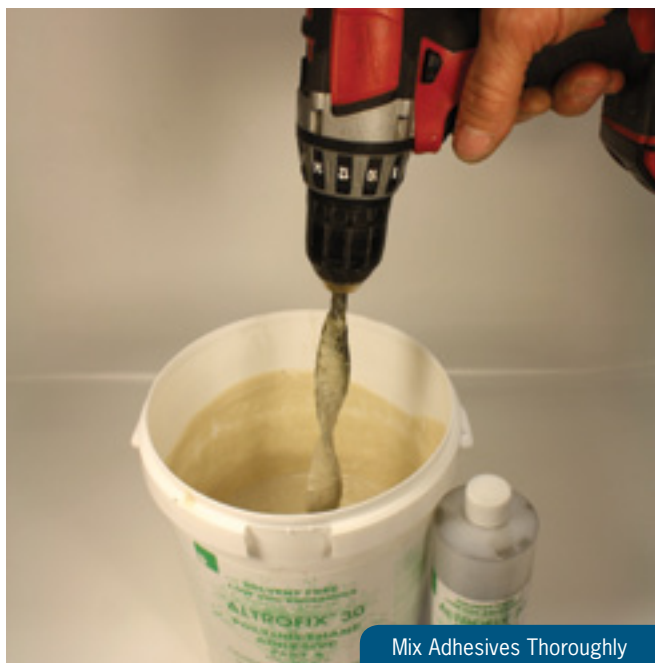
Adhesives (continued)

- When the solvents in the adhesive have evaporated, the adhesive will become dry to the touch but still tacky.
- Place the flooring back down onto the sub floor making sure it is positioned properly; this adhesive is not re-positional.
- Press flooring down firmly to ensure adhesion over the whole area and roll thoroughly with a 100 lb. roller on flat surfaces. Use a hand held roller for smaller pieces and for vertical surfaces.
- Clean off all excess adhesive with Paint Thinner or Mineral Spirits and ensure that all air bubbles are pushed out.



Two-component adhesives:

The application of two-component adhesives is similar to that for water based acrylic adhesives, but the following points should be noted:



- Careful and thorough mixing of the two components is essential.

- Mix adhesive with a low speed drill and mixing paddle to avoid aerating the adhesive.
- Do not mix the adhesive until the flooring is pulled back, swept and ready. These adhesives have a short working time and the applicator must be ready to start troweling immediately after mixing.
- After adhesive is troweled down, allow 30 minutes of open time before the flooring is applied.
- Two-component adhesives are not recommended for vertical surfaces.

Spray-application of adhesives:

We always recommend that a bond test be performed on a scrap piece of flooring to determine spray patterns and coverage required for a successful bond.

Follow adhesive manufacturer's recommendations and check that the proper spray nozzle is used.

Particular attention must be paid to ensuring that the compressed air circuit is constantly free of contamination from compressor oil and condensation, either or both of which can seriously impair effective adhesion.

Ensure that the correct amount of adhesive is applied to a given area. Insufficient or excessive adhesive amounts is cause for failure. Correct operation of the spray gun should be checked before each spraying operation.



Ensuring thorough adhesion:

Whatever the application method or type of adhesive used, it is essential that every part of the floor covering is in contact with and is bonded to the sub floor. This must be achieved by using a 100 lb. roller on flat surfaces and a hand held roller on vertical and hard to reach areas. The flooring must be rolled 100% free of any air bubbles before proceeding past this point.

8. Seam cutting methods

- Seams are to be trimmed net (not tight).
- Do not leave a gap greater than 1/32" wide.
- Seams should be cut using any of the following methods:
 - Pre cut
 - Trace cut
 - Double cut (recess method)



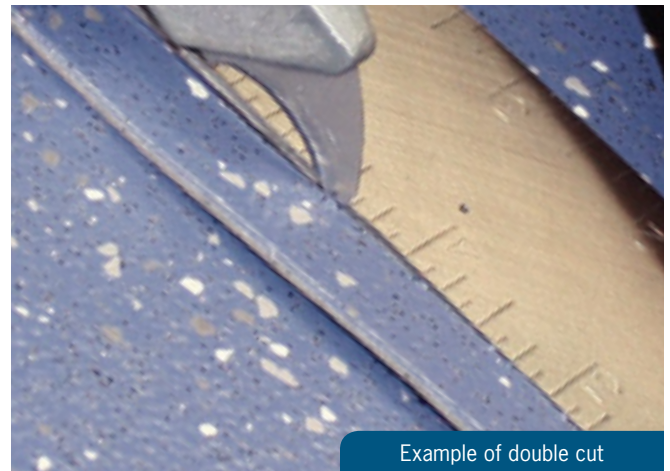
Pre cut (straight edge & fit)

- Cut the Altro Transflor to size and dry fit into place.
- Prior to spreading the adhesive, precut the seam edge on both pieces of flooring with a concave blade following the side of a straight edge.
- Butt seam edges together when laying the flooring into the adhesive.
- Roll the seam into the adhesive with a 2" seam roller.
- Do not compress fit the seams.



Trace cut

- Prior to spreading the adhesive, cut one side of the seam in desired location following the side of a straight edge using a concave blade.
- Lay the adjoining piece of flooring with the uncut seam edge into place allowing enough material to extend about 1/2" under where the seam will lay.
- Lay the piece of flooring with the precut seam edge on top of the adjoining piece overlapping the first sheet at the seam edge.
- Trace the precut edge with a concave blade cutting through the bottom piece of floor covering, remove the small cut
- Piece from under the floor and butt the two seam edges together.
- Fold the flooring back and apply adhesive.
- Roll the seam into the adhesive with a 2" seam roller.
- Do not compress fit the seams.



Double cut

- Lay the flooring into place and overlap the seams about an inch.
- Lay a straight edge in desired seam location on top of the overlapped flooring and follow the straight edge using a concave blade. Ensure the knife blade is vertical and not leaning to the left or right.
- Score through the material until you have cut through both layers of floor.
- Remove the small cut piece from under the floor and butt the two seam edges together.
- Fold the flooring back and apply adhesive.
- Roll the seam into the adhesive with a 2" seam roller.
- Do not compress fit the seams.

9. Heat welding

All seams in the vehicle must be heat welded. Applying caulking or sealant in the seams instead is not an approved method. **Do not heat weld the same day the floor covering is being installed.**

The adhesive must set for 8-24 hours to allow the adhesive to complete the initial cure otherwise the wet adhesive will contaminate the weld causing failures at a later date. Contact type adhesive can be welded after 1-4 hours.



4mm Heat welding tip

Attach the 4 mm heat tip to the heat gun



Wire brush

Clean with the heat welding tip cleaning brush (wire brush).



Heat weld gun

Preheat the heat gun by setting the temperature dial to 4 as a starting point and test heat setting on a scrap of material before proceeding. This may require fine adjustments once a test is performed.

Note: Weld rod should fuse without burning or discoloring. Local voltage and gun condition can affect temperature output so make sure to test each time you weld. Heat gun usually requires 15 minutes to heat up.



Grooving

When installing the flooring make sure both sides of the seam are cut straight and butted together to form a straight seam with no gaps.

Groove the seams using a hand groover following a straight edge, center the grooving tool blade over the seam removing material from both sides of the seam. The groove depth should be $\frac{1}{2}$ - $\frac{3}{4}$ the thickness of the floor covering.

Sweep out the groove to remove any debris.

Ensure the color of weld rod is correct and cut the weld rod to length, slightly longer than the seam.

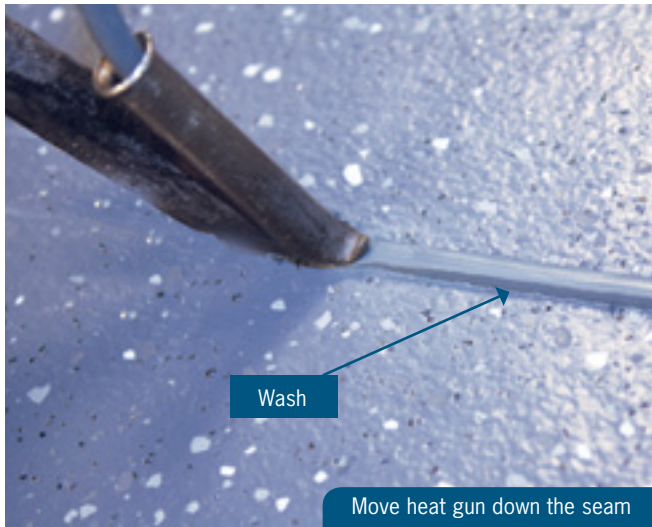


Ensure correct color of weld rod

Heat Welding (continued)

Starting at one end of the seam, lower the heat gun tip to the flooring while inserting the weld rod into the tip.

Move the heat gun down the seam in a backwards motion keeping the heel of the tip off the flooring approximately 1/8" to ensure there is no contact between the metal tip and the floor covering.



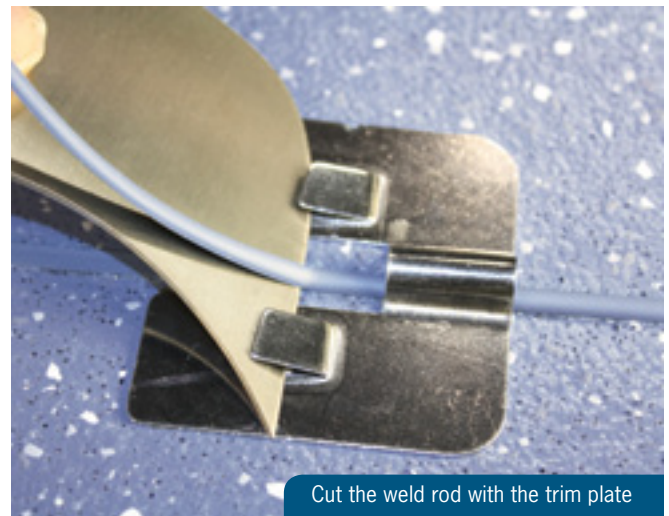
Apply light pressure.

Watch for the "wash" to form on both sides of the weld rod. If you don't see a wash slow down and/or turn up the heat.

If you're scorching the floor move slightly faster or turn down the heat. The rate of speed should be about 3 lineal feet per minute.

Allow the weld to cool for 5 minutes or more before moving to the next step.

Ensure the trim knife is sharpened with a 35° beveled edge on one side of the blade only. This beveled edge rests flat against the flooring.



Trim the weld in two stages, first with the trim plate under the trim knife, then with just the knife flat against the floor.

1. Insert the knife blade into the trim plate with the beveled edge resting flat against the floor and trim off the top portion of the weld rod.

2. Place the beveled edge of the trim knife directly against the floor and trim the remainder of the weld flush with the surface of the flooring.



In coved installations where the flooring transitions up the wall, use the X-acto blades in the Altro tool catalog to trim the weld rod flush in the coved radius areas.

Note: When a wall is present at both ends of the seam, it will require starting at opposite ends and overlapping the welds in the middle of the seam. Once the first pass is complete, trim the end of the seam back 2" so you can overlap the second pass from the opposite side and blend the seam together.

10. HB welding

When the floor covering is installed on both the floor and vertical surfaces such as on step wells, wheel wells, side walls, or the like, heat welding is the preferred method to seal the corners.

The HB weld rod is specially profiled for these areas and requires an HB welding tip to weld the two surfaces together.

Prior to welding the HB rod, clean both surfaces to be welded with denatured alcohol removing all adhesive and any contaminating residue and foreign matter. **Do not skip this step or the HB weld will not bond properly.**



Attach the HB weld tip onto the heat gun and increase the heat setting by one number setting higher than what was used with the 4 mm weld tip (usually #5).

Measure out the length of HB weld rod needed and cut slightly longer than the seam that will be welded, usually in one piece.

Unlike welding the flat seams, grooving is not necessary, however it is critical the area to be welded is cleaned with denatured alcohol.



Determine a starting point at one end and insert the HB rod into the HB tip and position it into the corner.

Moving the heat gun in a slow, consistent, backwards motion, ensure that the tip stays centered on the HB rod. Ensure the weld rod is applied straight and uniform.



A wash will develop on both edges of the HB weld rod which demonstrates fusion is taking place. No trimming is required with the HB weld rod.

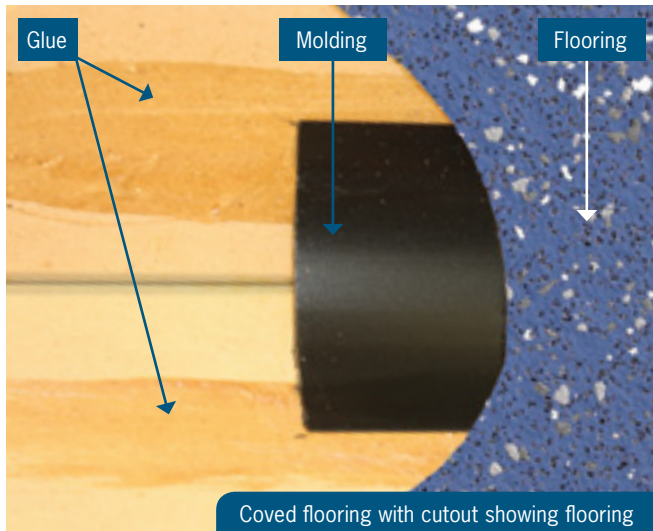
Inspect the entire weld to ensure permanent fusion has occurred. Do not continue until an acceptable weld is achieved.



11. Coving

In most cases coving the floor covering between horizontal and vertical surfaces with one seamless piece of flooring is preferred. Altro Transflor is flexible allowing it to be covered up the side of the vehicle to the required height.

A solid cove molding must be used under the flooring where the floor and walls meet to add structure and support to the flooring when covered up the wall. The cove molding also provides the ideal radius to make cleaning easier.



Altro cove molding is available in a range of sizes to fit most requirements.



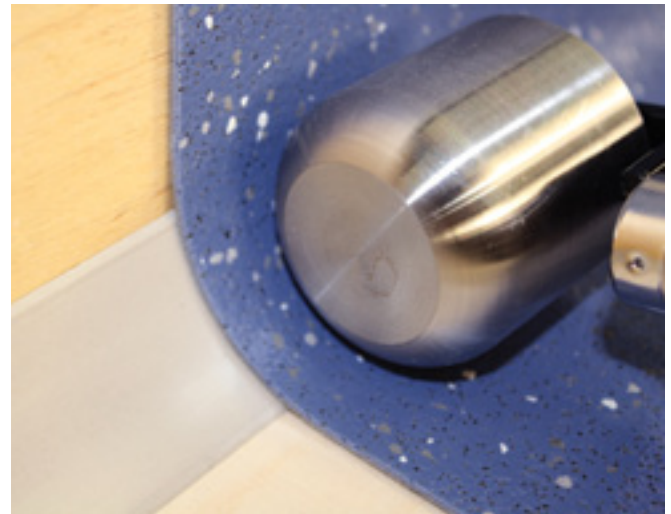
Cut the cove molding to size and adhere with contact adhesive. Apply adhesive to the floor and wall substrates as well as to the back of the cove former.

When installing the main flat floor section of the vehicle, do not apply the adhesive to the cove molding or the wall section, this will be done in a second stage after the main floor is installed.

Once the main floor section is installed and rolled with a 100 lb. roller, fold the flooring that extends up the wall down onto the floor exposing the wall and cove molding. Apply contact adhesive to sub-floor, cove molding, wall and back of floor covering. Allow sufficient open time as recommended on the adhesive label.



Roll the Altro floor tightly onto the cove molding using a three section hand roller keeping the flooring material from making contact with the wall.



Ensure the flooring is seated tightly into the cove molding first without any air gaps, then roll the flooring up the wall.

Trim as necessary. All exposed edges of flooring must be sealed with AltroMastic 100 or equivalent. Mechanical fastening is also recommended at the top edge of the coving.

12. Caulking/Sealant

In places where a watertight seal or joint is necessary but where it is impractical to use the hot weld method, care should be taken in selecting a good quality water-resistant mastic in a suitable color.

Altro supplies such a product called AltroMastic 100, readily available from Altro and its distributors.

AltroMastic 100 is a specially formulated sealing compound for use around the flooring edges, wall surfaces, or where the flooring is cut around pipes, door frames etc. for a waterproof finish, and where the heat weld method is impractical.

AltroMastic 100 is color coordinated designed to match each of our full range of floor colors and the codes can be found on the sample cards.

AltroMastic 100 should be stored or applied at 60-80°C (15-25°C) and has a 9 month shelf life. The best before date is printed on the label.

The use of a sealant/mastic is not a suitable substitute for a heat weld and should never be used in foot traffic areas. However, where a caulking is the only possible solution, it should be one which forms a chemical bond with the flooring, so that it will not be washed or worn away in use.

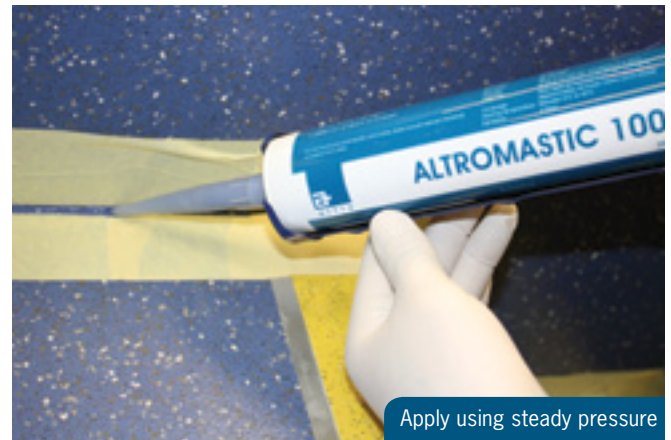


- Clean area to be sealed with denatured alcohol prior to applying AltroMastic.

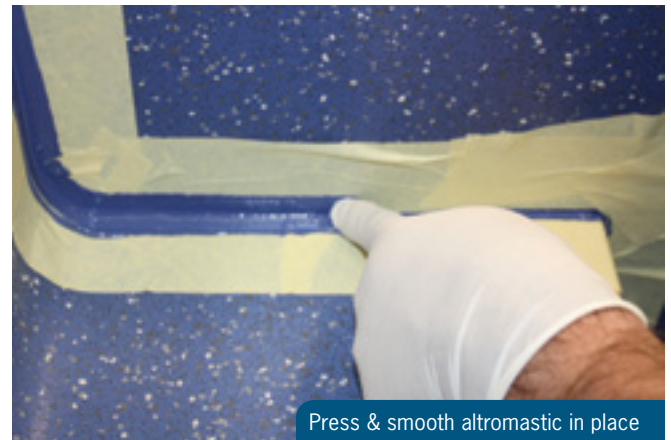


- Surfaces must be dry and free from dirt, oil, or grease, all areas to be sealed should be masked with tape.

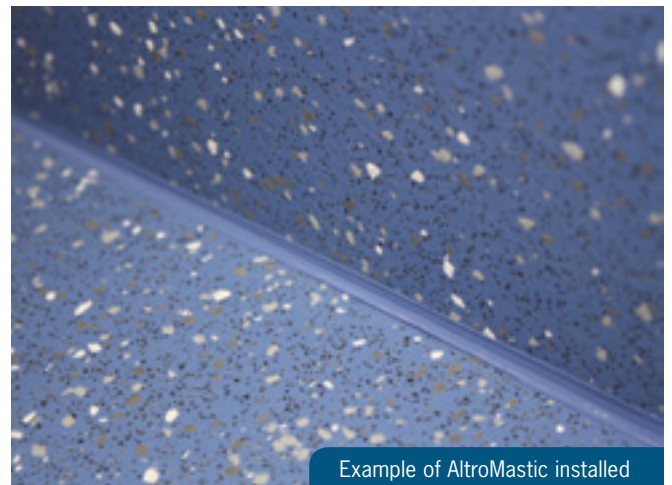
- Cut tube nozzle to allow 3mm/1/8" bead and insert tube into caulking gun.



- Use steady pressure on trigger applying sealant in desired location.



- Smooth AltroMastic 100 before it dries.
- Remove masking tape within 5-10 minutes.
- AltroMastic dries to the touch within 1 hour and curing takes 24-48 hours
- Clean surrounding area from unwanted sealant while it's still wet with denatured alcohol or mineral spirits.



13. Step installation

The steps and risers can be installed in individual separate pieces or kept together in a step and riser combination with a cove molding.

Two-Piece Step and Riser Install:

- Prep the step well as described in the sub floor Preparation section.
- Determine the specified step molding/nosing to be used, as each style of molding will require cutting the flooring to a different size. (See step nosing section #15)
- Measure and cut the flooring to fit the steps and risers.
- Use templates when possible to increase the accuracy and speed.
- Apply appropriate adhesive according to its specifications.
- Install the steps into the adhesive and roll with a three section hand roller.
- Install the risers with the bottom edge resting on top of the step.
- Cut and fit the flooring onto the step well sides leaving no gaps. Use templates when possible to increase the accuracy and speed.
- Install the parts after a proper fit is confirmed and roll with a hand roller.
- Install the specified step molding/nosing. (See Step nosing section #15)
- Finish the step well with HB weld (preferred) or AltroMastic 100 to ensure a water tight seal around the edges.

One-Piece Step and Riser Install:

- Prep the step well as described in the sub floor Preparation section.
- Cut and fit cove molding to fit on top of the step and up against the riser.
- Apply contact adhesive to cove molding.
- Determine the specified step molding/nosing to be used as each style will require cutting the flooring to a different size (see Step Nosing section #15).
- Measure and cut the flooring to fit from the front of the step up the cove molding to an inch above the top of the riser.
- Pieces should be cut to the correct width in the step well without any gaps. Use templates when possible to increase the accuracy and speed.
- Apply appropriate adhesive according to its specifications to the step, cove molding, and riser.
- Lay step into place starting at the step's edge and roll with a three section hand roller.
- Keep the flooring material from making contact with the riser and ensure the flooring is seated tightly into the cove molding before rolling the floor up the riser.
- Cut the flooring even with the top of the riser/start of the next step.
- Continue with remaining steps.
- Install the specified step molding/nosing (see Step nosing's #15).
- Finish the step well with HB weld (preferred) or AltroMastic 100 to ensure a water tight seal around the edges.



14. Step nosing

We offer aluminum step nosing and a vinyl step edge both available in safety yellow and white.

Aluminum step nosing

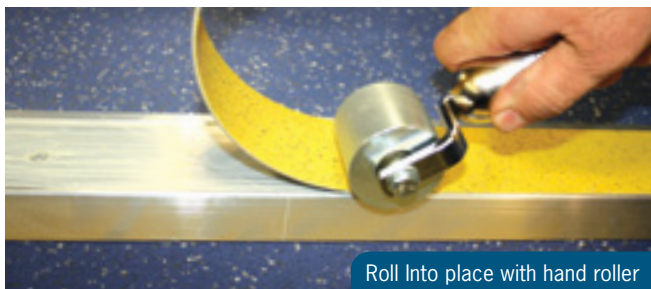
- Cut nosing to length and confirm fit.
- Aluminum nosing is applied on top of the flooring.
- Measure out and mark for fasteners every 6 inches



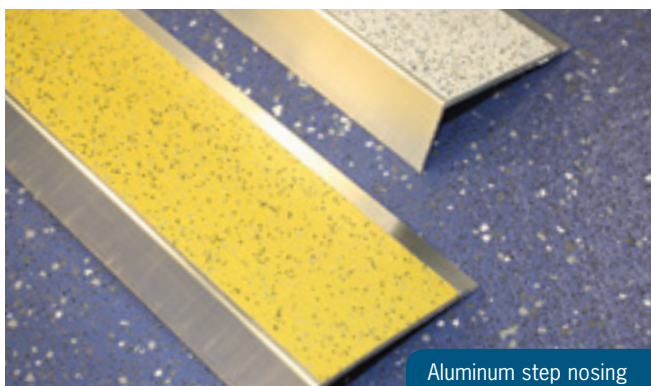
- Pre-drill screw holes and counter sink.
- The aluminum nosing can be applied with a cartridge adhesive or a quality contact cement.
- Apply the adhesive and secure nosing to the step, mount the nosing with the countersunk fasteners.

Wipe down surface of the aluminum nosing with denatured alcohol.

- Install the yellow or white safety insert that was supplied with the nosing with contact cement and roll into place with a hand roller.



- Sweep up any debris and wipe down with denatured alcohol to remove any adhesive.



Vinyl step edge

Cut and fit the vinyl nosing onto the step edge. Apply the vinyl nosing with a cartridge adhesive or quality contact cement.

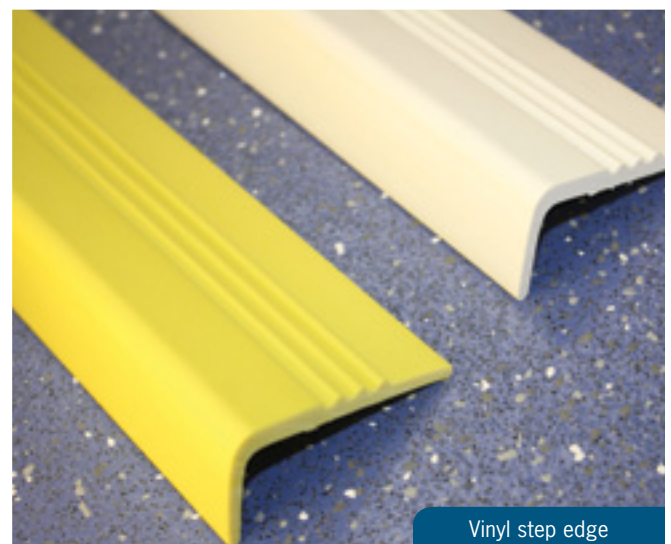
- Cut and fit the flooring material onto the step by sliding the flooring up against the back edge of the nosing. Ensure you achieve a smooth flush joint.
- Install the flooring onto the step using quality contact cement.



- After installed, roll with a hand roller.



- Heat weld the vinyl step edge to the flooring material by following the heat welding procedures.
- Note: The vinyl step edge can be welded to the flooring material and pre-cut to fit prior to the application, this may increase the accuracy and speed of the installation when possible.



15. Additional installation techniques

Wheel Well Installation

Each manufacturer has unique wheel wells and molding/trim with specific installation procedures. Most are covered in separate flooring pieces. We recommend HB welding all around the wheel wells and/or vertical areas where applicable. Seal with AltroMastic 100 when heat welding is impractical.

Seat Tracks

Where the Altro flooring is cut to the seat tracks either on the floor or on the walls, the edge of the flooring needs to be sealed with AltroMastic 100 to prevent water migration. It is recommended the sealant be applied to the edge of the track prior to fitting the floor to the track and again afterwards as well on the surface.

17. Tools

Altro offers a wide variety of tools for the installation of its products. Please consult with your local Altro supplier for an updated tool catalog.

16. Initial cleanup and protection

Cleanup

Remove any adhesive on top of the flooring with mineral spirits or denatured alcohol. **Do NOT use acetones, lacquer thinners or other chemicals that will damage the flooring surface.** For dried adhesive, it may require several applications of mineral spirits to soften the adhesive before it will lift off.

Protection

Protect the flooring with a non-staining type protection to ensure other tradesmen do not damage the floor.



Heat Welding Kit
AST HWKTF



Heat Welding Gun
AST HWGBT



Heat Welding Nozzle
AST HWNTR



4mm Heat Welding Tip
AST HWT4MM



Welding Tip for HB Weld
AST HWTBH



Heat Welding Tip Cleaning Brush
AST HWCBB



Feed Roller for HB Welding
AST FRHB



Trimming Knife Straight Handle
AST TKSH



Metal Trim Plate
AST TP

Tools (continued)



Grooving Tool Handle
AST GH



Grooving Tool Blade
AST GBS



Speed Groover
AST GSPEED



Bend Handle Groover
AST GHB



Groover Blade "U" Shape 10/Pack
AST GBU



Xacto Handle
AST XH



Xacto Blades (8 pc)
AST XB8



Straight Blades (100 pc)
AST BS



Hooked Blades (100 pc)
AST BH



Concave Blades (100 pc)
AST BC



2" Seam Roller
AST RSH



3 Section Floor Roller
AST R3



Trowel Blade 1/32 x 1/16 x 5/64 U
AST TBWHA



Trowel Blade 1/32 x 1/16 x 1/32 U
AST TBFFA



Trowel Handle
AST TH



Electric Groover
AST GE



Electric Groover Diamond Blade
AST GEDB

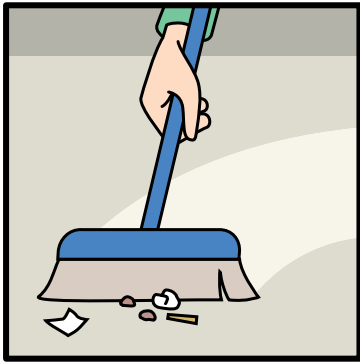


Installation Guide
TFL INSTALL HANDBOOK 2014

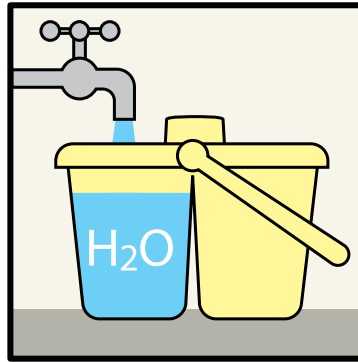
Install/Maint CD
TFL Install/Maint CD

Safety Flooring Cleaning Guidelines

ROUTINE CLEANING



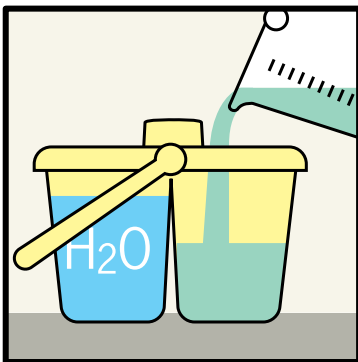
1. Sweep up dust and dirt, remove large debris.



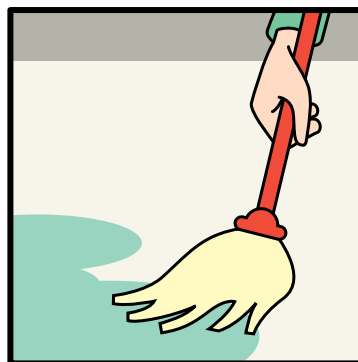
2. Fill one half of double bucket with warm water.



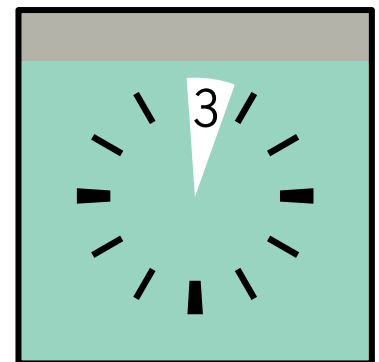
3. Dilute Altro 44™ or equivalent alkaline cleaner to correct dilution



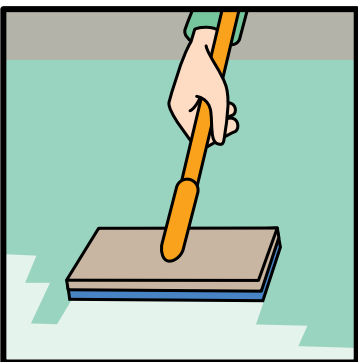
4. Pour diluted cleaner into other half of double bucket.



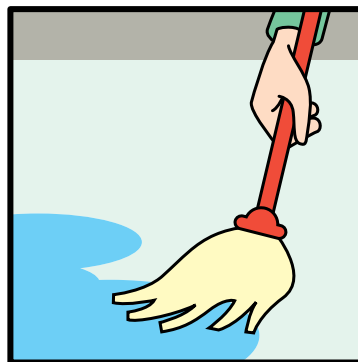
5. Apply cleaner to floor using a mop.



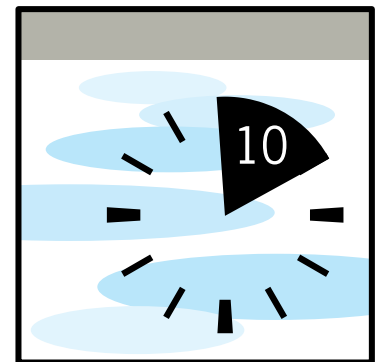
6. Leave cleaner on the floor for a few minutes to allow solution to break up dirt.



7. Scrub the floor with a deck scrubber or Altro UniPad cleaning pad.



8. Rinse the floor using a mop and the clean water from the double bucket.



9. Allow to dry.



Altro Transflor USA

12648 Clark Street
Santa Fe Springs, CA 90670

Tel **800.382.0333**

Fax **562.944.8720**

Email **transflor@altrofloors.com**

Altro Transflor Canada

6221 Kennedy Road, Unit 1
Mississauga, ON L5T 2S8

Tel **800.565.4658**

Fax **905.564.0750**

Email **transflor@altrofloors.com**

www.altrotransflor.com

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