



# Installation and maintenance guidance

Altro Adhesive-Free Flooring

Altro Cantata

Altro Wood adhesive-free

Altro Illustra adhesive-free

January 2024

## Key points to consider when installing Altro adhesive-free flooring.

- Confirm that the correct product is selected for the area type.
- Always hot weld the flooring joints and ensure that the correct tools are used for grooving, hot welding, and trimming.
- Leave the finished floor appropriately protected from other trades using a suitable non-staining floor protecting covering.
- Altro adhesive-free flooring must be installed in accordance with AS/NZ 1884:2021 & NZS AS 1884-2013.
- Only competent trained installers are recommended for the installation of Altro adhesive-free flooring.



## General

Altro adhesive-free flooring can be laid over a variety of surfaces without the need to fully adhere the material to the subfloor. This overcomes many of the problems encountered in laying sheet flooring over new or old subfloors.

Typical areas of use for Altro adhesive-free flooring include:

- Temporary or permanent walkways or areas where the substrate may need to be used again later.
- Over existing resin or paint systems that are sound.
- Over existing quarry tiles that are dry, sound, well bonded and suitably prepared.
- On new cementitious screeds or slabs where the moisture level is less than 97% RH over old soundly fixed, non friable asbestos tiles or vinyl sheet.
- Over internally heated subfloors providing they are dry, i.e. 75% RH.

Correct subfloor preparation is key in achieving a successful installation. Any irregularities in the subfloor will be seen in the finished installation.

Any failure directly related to inadequate subfloor conditions or subfloor preparation is the responsibility of the installer and / or flooring contractor once the installation has started.

Moisture tests should always be carried out on all substrates before commencement of installation and results recorded. All ground level concrete floors must have an effective damp proof membrane (DPM) fitted under the slab. If any doubt exists a surface applied moisture vapour barrier or other appropriate moisture protection system should be used in accordance with AS 1884:2021 & NZS 1884:2013 and manufacturers recommendations.

In areas subject to negative pressure caused by smoke or air extraction systems within a building, Altro adhesive-free floor coverings may lift slightly from the subfloor. In these situations we recommend that a fully bonded Altro floor covering is used instead.

Please contact Altro Technical Services for further information.

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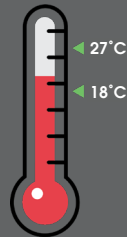
## STORAGE AND SITE CONDITIONS

**To ensure the integrity of the flooring during transportation for periods exceeding 24 hours, it is imperative to maintain an upright position at all times. In cases where transporting the flooring in a horizontal orientation is necessary, it is essential to securely fasten the rolls and avoid placing excessive weight on them.**

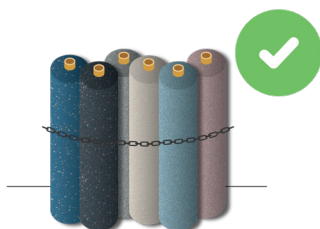
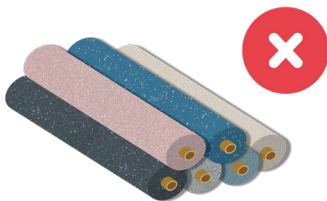
The material should be stored for approximately 24 hours at a room temperature of not below 18°C.

If the floor covering has been stored or transported immediately prior to delivery at a temperature of less than 10°C, then the acclimatisation period should be extended to 48 hours.

When laying, the area should be at a steady temperature of between 18°C and 27°C with a relative air humidity of between of 35% and 65% RH for at least 48 hours prior to, during and for at least 24 hours after completion.



When stored, all rolls must be standing in a dry, covered secured location, away from other trades and the public.



Before installation, verify the correct color and quantity of flooring has been delivered. Ensure that there are no manufacturing defects or damages resulting from transportation. It is important to note that claims related to warranty for color, batch, or obvious material defects will only be considered if the flooring has not been permanently bonded.

**Pattern ranges of Altro safety flooring will require the pattern to be matched from sheet to sheet (for further information contact Altro).**

## SUBFLOORS

All subfloors must conform to the requirements set out in **AS/NZ 1884:2021 & NZS AS 1884-2013 - Section 3** - Subfloors and Underlays. The subfloor surface must be clean and free of any debris / dust or loose particles. Absorbent surfaces may need priming using a suitable acrylic primer or Altro W165 wall and floor primer. The primed surface must be completely dry before installation starts. Prior to installation, all material including tapes and primer, should be allowed to reach room temperature.

### Timber subfloors

To achieve an acceptable substrate, all wooden floorboards and non-structural particle boards must be firmly affixed. These should then be covered using a certified timber flooring underlay with a minimum thickness of 5.5 mm, or alternatively, a cementitious underlayment approved by the manufacturer, applied at a minimum thickness of 4mm.

### Concrete subfloors

When installing Altro adhesive-free flooring on a new concrete sub-floor with an integral and effective damp-proof membrane, the relative humidity reading for the sub-floor can be as high as 97% RH. When installing Altro adhesive-free flooring on an existing concrete subfloor without an integral and effective

damp-proof membrane and where the relative humidity of the subfloor exceeds 75% RH (but less than 97% RH), **provision for additional ventilation should be made such as with ventilated skirting's.**

Altro adhesive-free flooring is not recommended for use in the following areas;

- On ground floor timber bases that are not adequately ventilated.
- On woodblock ground floors.
- On magnesite.
- On subfloors which contain an effective damp proof membrane but exceed a relative humidity reading of above 97% RH
- On internally heated subfloors which exceed 75% RH
- In minus temperature environments such as walk-in freezers.

The uses given in this datasheet are examples only. If in doubt, please contact Altro Technical Services for further information.

## Heated subfloors

Underfloor heating must be fully commissioned and taken through two complete cycles of heating up and cooling down prior to the floor covering being installed. The temperature at the underside of the floor covering, i.e. the subfloor / tape bond line, should never exceed 27°C. The relative humidity of the subfloor must be 75% RH or less.

The floor covering can be installed whilst the underfloor heating is on, only if the floor covering has been acclimatised and laid out in the room for and laid out in the room for at least 2 hours before installation. Issues will arise if the underfloor heating system is not commissioned and/or the floor covering is not acclimatised beforehand, and the temperature of the underfloor heating is increased from cold quickly instead of incremental. If installing the floor covering over the underfloor heating while switched off, it should be switched off 48 hours prior to the

floor covering installation and should remain off for the duration of the installation and at least 48 hours after completion. After the 48 hours have elapsed the temperature of the heating system should be increased gradually over a number of days, by a maximum of 5°C per day, until the desired room temperature is reached.

Please contact Altro Technical Services for more advice on installing adhesive free flooring over underfloor heating.

## Subfloor moisture testing

Concrete floors must be Relative Humidity assessed in accordance with ASTM F2170. Application and treatment of floors if required based on readings must be adhered to.



Timber, plywood, and particle board must also be assessed, in accordance with AS/NZS1080.1 & AS/NZS 2098.1.

## Expansion joints

Altro adhesive-free flooring should never bridge an expansion joint. The joints need to be brought through to the final floor finish, and the floor coverings should finish either side of the joint. If required a suitable expansion joint cover strip can be used - please contact Altro Technical Services for more advice.

## APPROVED INSTALLATION TAPE AND RECOMMENDED USE OF ADHESIVE

Altro adhesive-free flooring is a loose laid floor and is laid with the aid of the Altro double sided adhesive tape. This tape is supplied with each roll of Altro adhesive-free flooring.

Please note that the surface area to receive the tape must be clean and dust free. Absorbent surfaces may need priming using a suitable acrylic primer or Altro W165 wall and floor primer in accordance with manufacturer's instructions. Spray adhesives used as primers should be avoided. The primed surface must be completely dry before installation starts.

In order to provide the optimum installed system and to conform to the conditions of the guarantee, please ensure that only this tape is used in connection with Altro adhesive-free flooring.

Additional rolls of tape are available from Altro. Please contact the Altro Customer Care Centre for further information.

## LAYING

Before starting the installation process, it is important to prepare the floor properly. Remove any loose particles and thoroughly vacuum the floor to ensure a clean surface.

Set out of vinyl should follow an approved seam layout with cross joins staggered over multiple widths and if possible, utilised in traffic free areas. Seams at a minimum must be 300mm from all floor wastes.

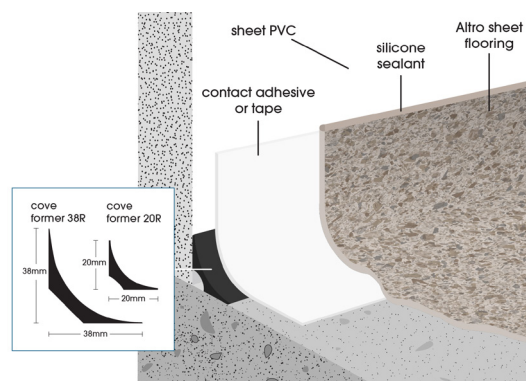
Cut the material into lengths and allow it to lay loose for conditioning for a minimum of 2 hours before fitting. "Back rolling" or "dressing" the material helps condition the flooring for installation.

Once laid out and conditioned, all joints should be overlapped by approximately

20mm and cut in to form a tight joint.

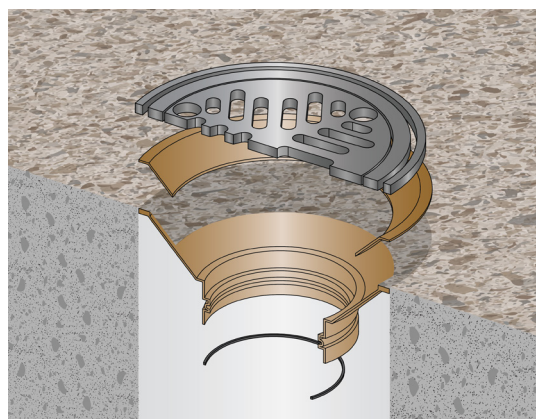
Make sure that the material used in each area comes from the same manufacturing batch, and lay the sheets in the same direction to maintain consistency.

Altro safety flooring can be flat laid or self-coved. The use of a 20 or 32mm cove fillet when coving is recommended. Coving height should be at a minimum of 75mm to a maximum of 150mm. A pencil cove detail is an option, provided the internal radius does not exceed 5mm.



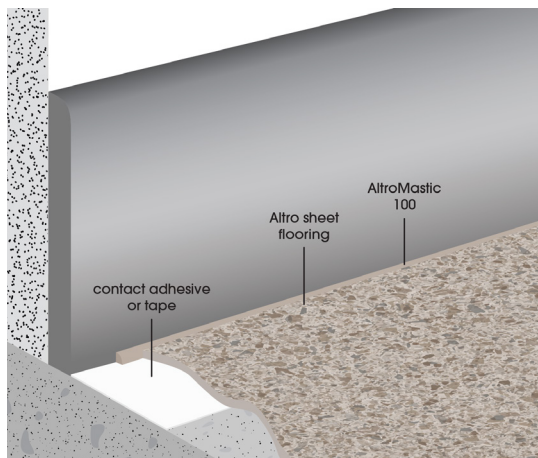
Utilising heat can aid in shaping the vinyl during coving; however, it is crucial to exercise caution to prevent burning or causing damage to the vinyl surface.

In areas prone to moisture exposure, it is imperative to ensure comprehensive sealing during installation. This involves employing traditional clamping or welding drain systems and access covers, sealing pipes, toilet pans, door frames, and employing suitable sealing techniques at the junctions between Altro flooring and wall coverings or adjacent floor surfaces.



All flat laid areas of Altro adhesive free floor covering must be sealed around perimeters and exposed edges with AltroMastic 100. This also applies to door frames and around fixtures and fittings.

It is recommended to refer to the Altro detail diagram sheet for the appropriate finishes and sealing techniques to maintain a watertight and secure installation. Proper sealing helps prevent water damage, maintain hygiene, and ensure the longevity of the flooring system in moisture-prone areas.



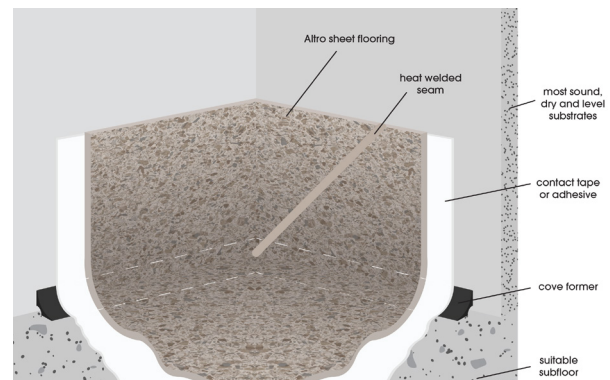
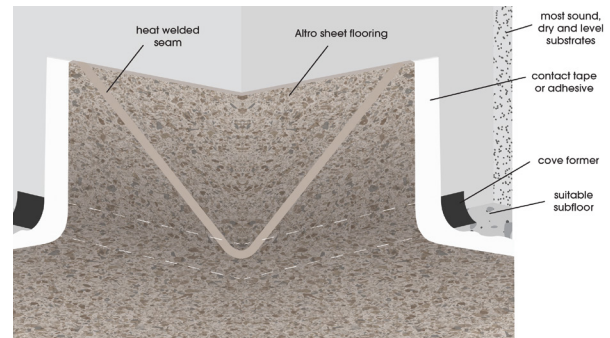
After the vinyl has been laid out and conditioned, overlap all joints by approximately 20mm and cut with the aid of a scribing tool to form a tight joint.

Additionally, use Altro double-sided tape to secure the flooring material to the subfloor at any termination points, like door entrances. In areas with high traffic or frequent turning points, applying additional tapes can provide enhanced adhesion and durability.

Once fully installed, all joints and mitres within the installation should be hot welded with the matching colour Altro Weldrod™, as detailed in the Altro safety flooring installation guidance sheet.

In order to protect welds from potential structural wall movement, it is crucial to perform both internal and external welds

at a 45-degree angle, as shown in the diagrams below. This method is designed to uphold the strength and stability of the weld across diverse conditions, ensuring its long-term reliability.



**Note:**

While tape serves as a highly secure bonding agent, installers still have the conventional option of employing either water-based or solvent-based contact adhesives to attach covered flooring or forming into clamp waste systems. The choice between these adhesives hinges on the suitability of the areas and adherence to safety requirements during the installation process.

## Cool rooms

In cold or freezer room environments, Altro does not recommend an adhesive-free installation. Refer to Altro's Safety Flooring Installation Guide for the approved procedure.

## Seams

Altro Safety floor seams must be heat welded only. Chemically welded or butt joined is not permitted. All seams must be cut, cleaned and rolled before proceeding. Joins should be scribed cut to achieve a tight seam, constantly maintained throughout the entire length.

## Grooving

A 3mm wide groove to two-thirds depth of the flooring must be cut evenly along each floor joint. It is recommended that a P type, Plane, or mechanical power groover is used to ensure the correct gauge and radius is achieved.



## Forming a hot welded joint

Once the sheet vinyl flooring has been installed and adhered, it is essential to hot weld all joints using Altro Weldrod™. This process requires a hot air welding gun equipped with a 5mm high-speed welding nozzle.



To ensure the correct temperature setting, it is recommended to test the weld on a spare piece of flooring before commencing.

Start by welding the internal and external miters on the coved sections, followed by the floor seams. It is important to keep the filter of the welding gun clear from debris to maintain the optimal weld temperature.

## Trimming weld

During the process of welding seams, it is crucial to cut them with two passes to achieve a flush finish. Utilizing a trimming plate, leave an excess of 0.5mm to 0.7mm after the initial cut on the weld. It is important to then let the weld cool entirely before performing the final cut. Employ tools explicitly designed for cutting back joint seams, as well as internal and external welds. Ensure that the cutting blades are sharp and in good condition for the best possible outcome. Following these recommendations will result in a successful and compliant seam.





## POST INSTALL

Remove any residual adhesive and thoroughly sweep/vacuum floor clean. Spot clean with AltroClean 44+ and a clean white cloth as required. Using a suitable non-staining material, protect completed floor areas from following trades until ready for use. A stronger grade protection material should be used if heavy machinery is to be temporarily moved/stored on floor area.

Please ensure that the wheels of any rolling loads are in good condition and are freewheeling.

## Cleaning and maintenance

### Basics

The contractor must provide the customer with cleaning and maintenance instructions. You can download these from [www.altro.com](http://www.altro.com). Correct cleaning and maintenance have a decisive influence on the service life and preservation of the value of the installed flooring.

### Preventive measures

Soiling can be greatly reduced by providing suitably dimensioned “walk-off areas” with appropriate doormats at the entrances to buildings. These should have a length of at least 4–6 strides.

**Please note: A distinction should always be made between adhesive and non-adhesive dirt. Non-adhesive dirt should be removed using a dry method of cleaning. Loose dust, for example, can be removed simply by brushing or using a vacuum cleaner with a hard floor brush.**

### 1. Final cleaning after installation

The final cleaning after installation is intended to remove all dirt introduced during the construction phase. Red pads and JuliPads can be used with single-disc machines.

**Please note: Initial treatment is not necessary.**

Altro adhesive-free flooring does not require extra surface polish or treatment following installation. The surface only requires ongoing cleaning and maintenance on a regular basis with the correct cleaning solution and equipment. The use of a polish will reduce the slip resistance of the floor covering.

### 2. Routine cleaning

Routine cleaning should be conducted with a detergent that contains no care product ingredients and which dries on the surface without leaving any residue. Alternatively, routine cleaning can be carried out using another certified cleaning agent in accordance with the guidelines as given by the cleaning agent’s manufacturer. These products should not contain any substances that form a film. Switching to a different detergent can have negative repercussions for the cleaning effect. We recommend aligning the cleaning cycle to the accumulation of dirt. The standard technique recommended is two-stage wiping, in which dirt and dust are removed without residue or streaks.

### 3. Machine cleaning

The use of a scrubbing / vacuum machine is particularly effective in large buildings. We recommend the use of cleaning machines in combination with micro-brush pads to deal with open spaces and hallways. For smaller areas, please use machines with a high suction capacity; they should also be equipped with constant suction mode when moving onwards or backwards.

**Please note: Routine cleaning should be carried out using a microfiber mop in accordance with the manufacturer’s guidelines. As a rule, we recommend using a mop with a working width of 40 cm.**

### 4. Basic cleaning

In the event of basic cleaning becoming necessary due to an excessive introduction

