



# Installation guidance

Altro Safety Flooring

July 2023

## Key points to consider when installing Altro safety flooring.

- Confirm that the correct product is selected for the area type.
- Ensure that the correct adhesive is selected for the area type.
- Always hot weld the flooring joints confirming 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 safety 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 safety flooring.

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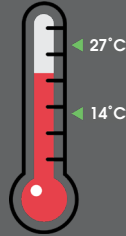
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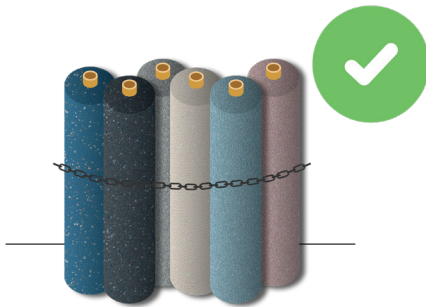
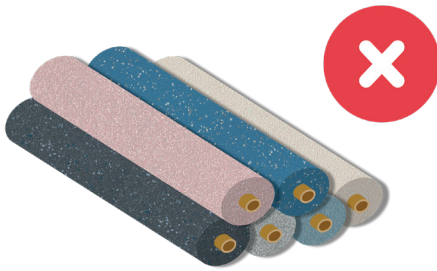
## STORAGE

Material must be acclimatised on site for approximately 24 hours at a room temperature of not below 14°C.

When laying, the area should be at a steady temperature of between 14°C and 27°C 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, it is essential to verify the correct color and quantity of the flooring. 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**. Preparation works must also be in accordance with guidelines supplied by the manufacturer of floor preparation products. Warranties will be void if Altro Safety flooring products are installed over subfloors that do not conform to the standards noted.

### Heated subfloors

Installation must not proceed until heating has been turned off for a minimum of 48 hours, remain off during installation and turned back on 48 hours post install. Heating to normal operating temperature should be at no more than 2° C increments per day. Full operating temperature must not exceed 28° C.

### Subfloor moisture testing

Concrete floors must be Relative Humidity assessed in accordance with ASTM F2170. Application and treatment of floors 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.

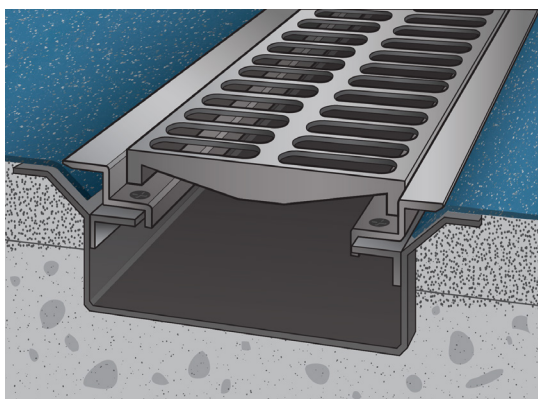
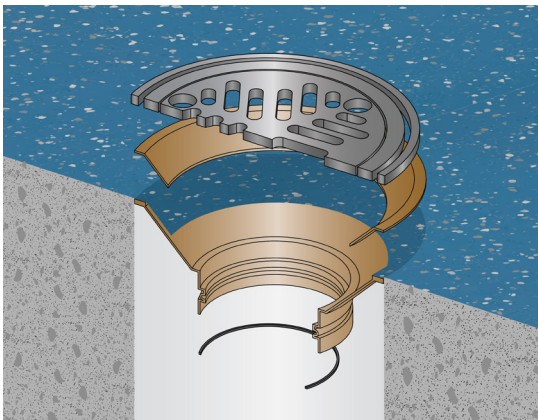
## WET AREAS

### Wet areas with falls to wastes

Prior to beginning the installation in wet areas, it is imperative to verify that all local AS/NZS 4858 membrane requirements are being strictly adhered to.

Following these specific guidelines will ensure that the membrane installation meets the necessary standards for waterproofing and provides a safe and effective barrier against moisture in these areas.

For areas with falls to waste or where floor wastes are fitted, a vinyl waste clamp system must be used at all drainage points. Falls must conform to **AS 3740-2021- Appendix B Falls in floor finishes.**



Where falls to waste are present, it is crucial to ensure the subfloor composition is suitable. Only formed concrete, engineered screeds, bulk fill reinforced levelers, or products designed and warranted for such applications should be used. Installation over sand-cement screeds should not

proceed unless independent testing confirms sufficient compressive and tensile strength.

## ADHESIVES

A waterproof adhesive such as AltroFix™ A19 or similar, must be used in areas subjected to high water usage and moisture ingress. Dry areas can be installed with a hard-set water dispersion adhesive provided the subfloor porosity is in accordance with ASTM F3191. Please refer to Altro, or alternative manufacturers adhesive data sheets when installing.

For application, use a U1 notched trowel (0.8mm X 0.8mm X 1.6mm) unless noted otherwise. It is important to note that the warranty will be void if materials are installed over adhesive that has flashed over and no transfer observed.

The image provided illustrates inadequate adhesive transfer, as the trowel ribs are excessively visible. The adhesive was exposed for an extended period, resulting in incomplete coverage across the entire floor surface.



In a coved installation, trowel adhesive to the base of the cove and within 20mm of clamp drains. To ensure an instant bond for coving and to facilitate vinyl forming into waste systems, contact adhesive is recommended.

After installation, remove excess adhesive with a cloth and a neutral detergent in the case of acrylic adhesive or with alcohol based for waterproof and reactive adhesives.

# 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.

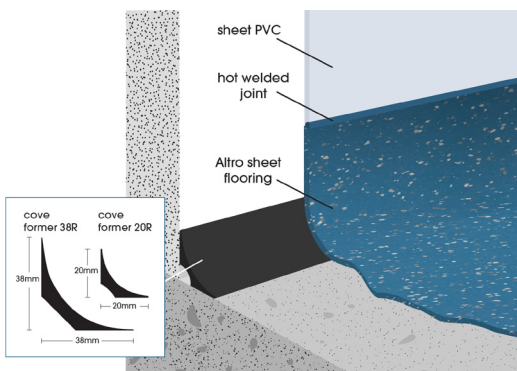
Set out of vinyl should follow an approved seam layout with cross joins staggered over multiple widths and if possible, utilised in traffic free areas. Seams at a minimum must be 300mm from all floor wastes.

Cut the material into lengths and allow it to lay loose for conditioning for a minimum of 2 hours before adhering to the subfloor. "Back rolling" or "dressing" the material helps remove any tension present in the product. Trim 10mm or as required, salvage edges to vinyl to eliminate any damage caused during storage or transportation.

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

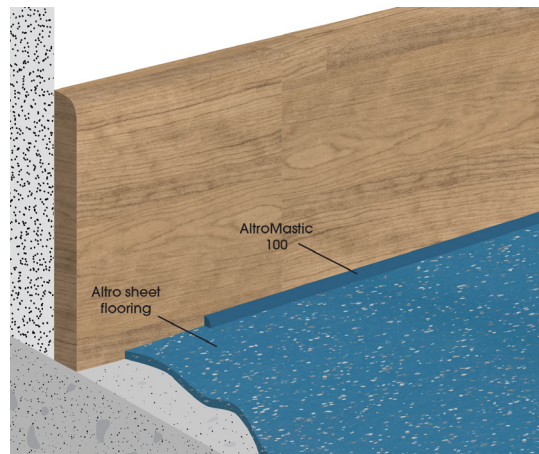
Altro safety flooring can be flat laid or self-coved. The use of a 20 or 32mm cove fillet when coving is recommended. Coving height should be at a minimum of 75mm to a maximum of 150mm. A pencil cove detail is an option, provided the internal radius does not exceed 5mm.

In areas where water exposure is common, Altro advises to install a cove extending up the wall to a height of 150mm.



The use of heat will assist in forming the vinyl when coving, but all care must be taken to avoid burning or damaging the vinyl surface. Caution should always be exercised when using flammable solvent-based adhesive and a gas torch simultaneously. It is essential to adhere to all manufacturers safety requirements and guidelines to minimize any potential risks or hazards.

In areas prone to moisture spillage, it is crucial to ensure a complete installation seal. This includes using conventional clamping or welding type drain gulley's and access covers, sealing pipes, toilet pans, door frames, and employing appropriate sealing methods at the junction of Altro flooring with wall coverings or other floor surfaces. 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 create a consistent 0.5mm gapped joint. Whether the joints are cut in before or after applying the adhesive can be based on the preference of the flooring installer. However, in large installations, it is important to consider that cutting the joints and perimeter beforehand may create

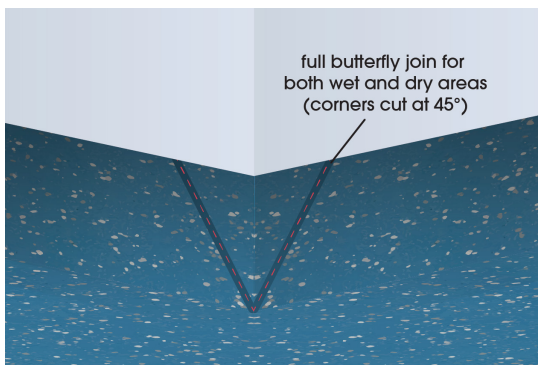
difficulties if the sheet moves during the process of placing it into the adhesive. Careful consideration should be given to avoid any potential issues during installation.

To start installation, pull back the material and apply adhesive to the subfloor as per the manufacturer's instructions. Allow the specified open time, which may vary based on the subfloor and site conditions. Carefully place the floor covering back into the adhesive, ensuring to eliminate any air bubbles.

Immediately remove any excess adhesive. Depending on the adhesive used (consult Altro Adhesives), roll the entire area with a floor roller in both width and length directions. A push board wrapped in a soft textile material that has been pre-wetted can also be used.

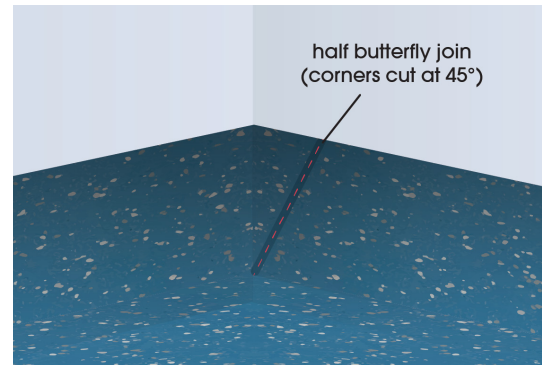


Altro recommends all external corners to be cut on a 45-degree angle.



To safeguard the integrity of the internal miter weld against structural wall movement, it is essential to execute all internal welds at a 45-degree angle, as depicted in the

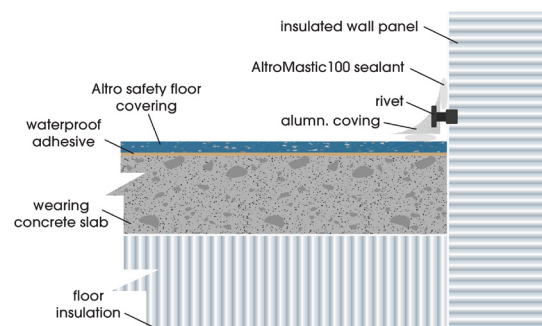
illustration below. This approach helps to maintain the strength and stability of the weld under varying conditions and ensures its long-term reliability.



Allow 12 hours between laying and welding to ensure adhesive is properly set.

### Cool rooms

To ensure optimal results in cold room installations, it is crucial to follow specific procedures. Before commencing work, the cold room should be turned off for 48 hours to align the sub-floor and ambient temperatures with the recommended installation range. Altro recommends flat laying the flooring and installing a separate aluminium cove that is riveted and sealed to both the wall and floor to seal the perimeter edge effectively. After the installation and welding are completed, the cold room should remain off for an additional 48 hours. Gradual temperature reduction is essential for proper acclimatization of the material and adhesive. AltroFix Troweasay Plus or equivalent is the recommended adhesive for cold room installations. Additionally, thorough sealing of fixtures, fittings, and penetrations is important to prevent moisture ingress.

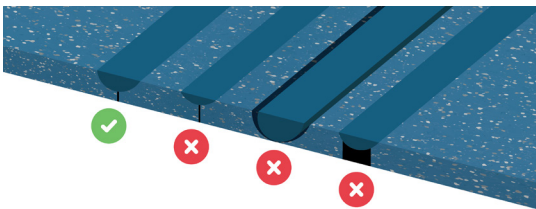


## Seams

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 adhesive has flashed over. Ensure a full adhesive transfer is obtained. Joins should be scribed cut to ensure a 0.5mm gap is 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. Ideally, allow a minimum of 12 hours between laying the flooring and performing the hot weld to ensure proper adhesion and durability.



## 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.



