

# LAYING TECHNIQUES FOR HOMOGENEOUS AND MULTILAYERED ROLLS COMPACT OR ACOUSTIC

This guide provides a comprehensive overview of the correct procedures for installing vinyl sheet flooring in accordance with the Australian standard AS 1884-2021. Following these steps will ensure a high-quality, durable and compliant installation.

## 1. MATERIAL INSPECTION

- Confirm the product is the correct type, colour, batch number and quantity as ordered.
- The product must be acclimatised to the installation conditions of a minimum of 24 hours prior to work. The room temperature should be between 15°C and 28°C. Never install the material if the temperature in the room is less than 15°C as per current AS 1884-2021.
- Do not install material that has visible defects or damage. A contractor that installs material that has visible defects or damages assumes full responsibility for that material.
- Unroll the vinyl sheet in good daylight conditions and carefully check for any visible defects such as tears, scratches, transit damage or manufacturing faults.

## 2. SUBFLOOR REQUIREMENTS & PREPARATION

Subfloors must be prepared in accordance with the recommendations outlined in Australian Standard AS 1884-2021. The condition of the subfloor is a critical factor that significantly influences both the final aesthetic and the long-term serviceability of the floor covering.

The subfloor must be flat, smooth, clean, dry and structurally sound. It should be free from any contaminants like oils, wax, grease, dust, paints and old adhesive. Contaminants may affect the adhesive from bonding to the subfloor and can cause discolourations in the vinyl.

### CONCRETE SUBFLOORS

- Concrete subfloors must be fully cured and completely dry.
- A moisture test should always be conducted in accordance with AS 1884-2021 appendix A.3.2.2 before installation. The relative humidity (RH) of the concrete slab must not exceed 80%.
- If the relative humidity of a concrete slab exceeds 80%, a moisture barrier or a specialised epoxy sealer must be applied to the subfloor to prevent moisture vapour from damaging the adhesive and the vinyl flooring.
- The concrete surface must be level, smooth and solid, with no abrupt deviations. When a 2000mm straightedge is placed in any position, resting on any two points, no part of the surface should be more than 4mm below the straightedge.
- Any contaminants that could compromise the adhesive's bond must be completely removed by mechanical means (e.g., diamond grinding or shot blasting) before any floor preparation or covering installation.
- If the surface is not suitable, it must be repaired and levelled with a cementitious underlayment according to the manufacturer's instructions.

### HEATED SUBFLOORS

- When installing flooring material over a heated subfloor, the surface temperature must not exceed 28°C to prevent discolouration or other material damage. Follow these steps for a successful installation:
  - Turn on the heating system minimum seven days before installation to eliminate residual moisture from the subfloor.
  - Turn off the heating 48 hours before and during the installation, allowing the subfloor to reach the recommended temperature range.
- **Post-Installation:** Do not reactivate the heating until 48 hours after the installation is complete. Afterward, increase the temperature gradually by 2°C per day until the desired level is reached.
- **Final Curing:** For a period of seven days following the installation, avoid maximum heating conditions to prevent localised hot spots that could compromise the adhesive bond and the flooring.

### TIMBER SUBFLOORS / WOOD PANELS

- For all timber subfloors, a moisture test should always be conducted before installation, as stipulated in Australian Standard AS 1884-2021.
- To prevent moisture buildup that could lead to distortion and bubbling of the floor covering, all timber subfloors must have a minimum of 450mm of good cross-ventilation underneath.

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- **New Timber Subfloors:** Ensure new timber subfloors are rigid, structurally sound and made from seasoned timber, free from excessive cupping and warping.
- **Old Timber Subfloors:** Any loose boards must be re-nailed, and badly worn or damaged boards should be replaced.
- **Surface Preparation:** All timber floors must be sanded or planed to a smooth level finish without undulations.
- **Underlay Installation:** The subfloor should be overlaid with hardboard or an approved fibrous cement underlay for vinyl flooring.
- Install and secure the underlay sheets according to the manufacturer's instructions. All end joints of the board underlay should be staggered. All joints and any raised edges must be sanded smooth and level, leaving no deviation between sheets.
- When using hardboard underlay over structural particle board, use the adhesive and fixing system specified by the underlay manufacturer.
- Please note that the joints in the board underlay may be visible through the finished flooring.

## EXISTING RESILIENT FLOOR COVERINGS

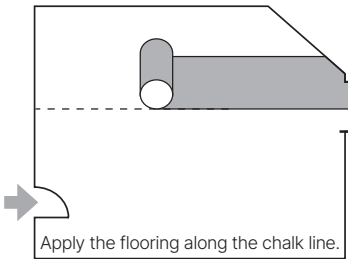
- Existing resilient floor coverings should be removed before installation. The exposed subfloor must then be prepared in accordance with Australian Standard AS 1884-2021.

## 3. INSTALLATION

Installation should be carried out at ambient temperature between 15°C and 28°C. Never install the material if the temperature in the room is less than 15°C. This temperature should be maintained for at least 48 hours after installation.

### POSITIONING

- For laying directions, please refer to laying directions document (201).
- Vinyl sheet directions and seam/join positions should always be approved by the client before installation.
- Seams and cross joins should be kept away from areas of heavy traffic or heavy load.
- Within rooms, sheets should run towards the main light source and/or the length of the room.
- Within corridors, sheets should be laid in the direction of the pedestrian traffic unless otherwise stated in specifications.
- Mark a longitudinal axis with a chalk line for reference to place the sheets.

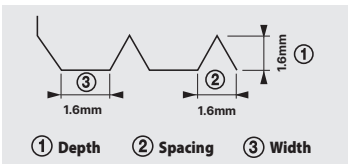


- Cut the sheet to length and lay them out. Leave an extra 30mm at the edges for trimming. The first sheet will be laid along the longitudinal axis.
- Leave a gap of 1cm between every sheet to allow full acclimation. Let material relax for 24 hours to fully release tension of the material.

## 4. ADHESIVE APPLICATION AND FITTING

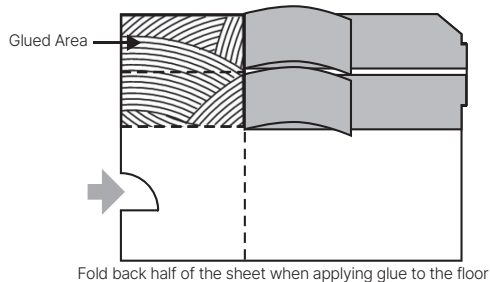
Always follow carefully adhesive manufacturer's instructions.

- This is done 24 hours after having unrolled and laid out the lengths.
- For welding joints, leave a gap of maximum 1mm between sheets.
- The application is done using a hard-set adhesive and a V1 trowel (1.6mm x 1.6mm x 1.6mm).
- Coverage rate is approximately 300g/sqm. It is necessary to change the trowel regularly to achieve this coverage.



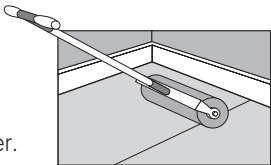
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- Fold back half of the sheets in a lapped or tubed method. tubed method is recommended for corridors.



- Once the sheets are folded back, clean the subfloor and the back of the sheets.
- Spread the adhesive with the recommended trowel.

- Allow the adhesive to tack up. The waiting time depends on the site conditions and type of subfloor.
  - Too short waiting time may cause bubbling.
  - Too long waiting time will cause poor transfer of the adhesive to the back of flooring and weak bonding.
- Lay the material into the adhesive and press using a cork pushing board to expel any trapped air.
- Repeat this procedure with the other half of the sheets.
- Leave a small gap (0.8 to 1mm) between the sheets to allow the grooving tool to be guided during hot welding process.
- When installation is complete, use a 50kg roller to roll over the entire surface to flatten adhesive trowel marks and ensure full adhesive transfer.



## RECOMENDED ADHESIVES

- The recommended adhesives for homogeneous and multilayered sheet vinyl are as follows;
  - Bostik Stix A800 Premium
  - Bostik Stix A300 Multi-floor
  - Nexus NA810
  - Nexus NA880
  - Mapei Ultrabond Eco V4 Evolution
  - Mapei Ultrabond VS 90 Plus
  - Mapei Ultrabond Eco 380

## 5. TRIMMING EDGES

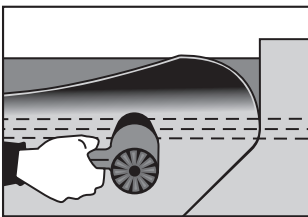
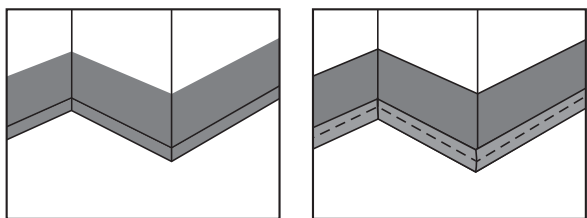
- **Peripheral trimming:** Using a sharp knife, cut the vinyl sheet precisely along the walls and fixtures for a clean, tight fit.

## 5. COVING

Coving system must be between 70 and 150mm. In areas exposed to running water, coving shall extend up the wall to a minimum height of 150 mm.

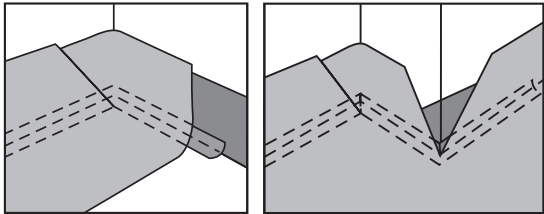
The bonding of coving is done with water-based contact adhesive or high-strength double sided-tape designed for covings (in accordance with the adhesive manufacturer instructions). We do not recommend solvent-based contact adhesive.

- Draw a line at the height defined on the wall and at 15 or 20mm on the ground according to the cove fillet used.
- Apply adhesive or double-sided tape.
- Install cove fillet and apply adhesive or double-sided tape on it.
- Bond and fix the flooring onto the cove fillet and the wall until the expected height. To ensure good bonding of the material on the cove fillet and in corners, we advise to heat the material with a heat gun.

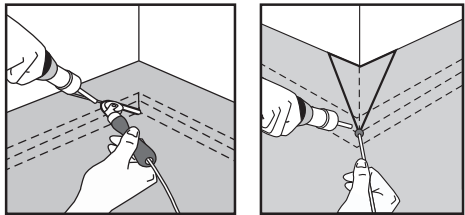


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- For internal angles, the product shall be cut at 45°.
- For external corners, make a 45-degree butterfly cut, fold the material tightly around each side of the corner, and install an infill cut to wrap around the corner.



- Open and groove the gap using a triangular groover. (Follow instructions in 6. Hot Welding)
- Weld in the angles with speed welding nozzle. Finish the angle with a pressure ball or an angle finishing nozzle.



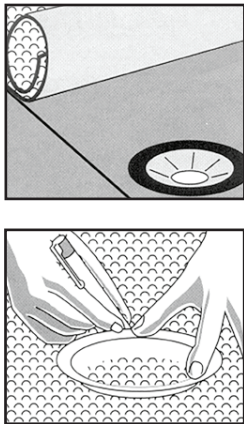
- Once the weld rod has cooled down, trim the rod in two stages with the Mozart tool.

## 5. FLOOR WASTE

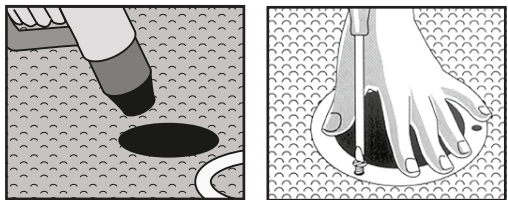
Push-in vinyl sheet floor waste shall be fitted when installing in showers or wet-areas. The floor waste is supplied and fitted by the plumber at finished concrete slab level.

Welds shall be positioned at a minimum of 300mm away from the waste. Contact adhesive shall be used around the waste.

- Remove the grate and the clamp ring. Set aside for reinstallation.
- Roll and glue the vinyl into place in the room.
- Smooth it flat over the waste area and find the centre of the waste by pressing your fingers.
- Make a small X-cut at the center of the waste and work slowly around the waste. (The inner circle of the clamp ring may be used as a template).



- Carefully heat the material and position into place.
- Reinstall the clamp ring and fasten it securely with the screws.

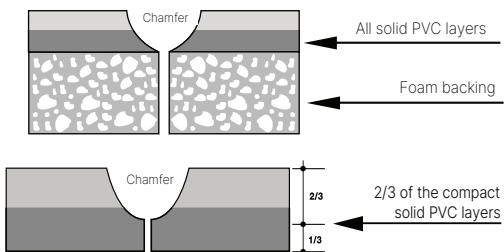


## 6. HOT WELDING

Hot welding shall be carried out at least 24 hours after gluing.

### GROOVING / CHAMFERING

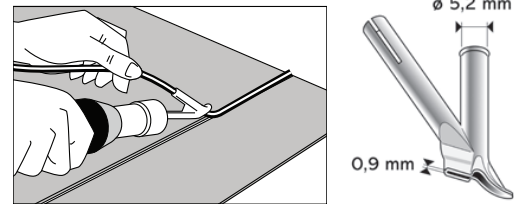
- Using a grooving tool or machine, groove about 2/3 of the thickness of the material.
- Comfort products (foam backing) are grooved down to the foam, not into the foam.



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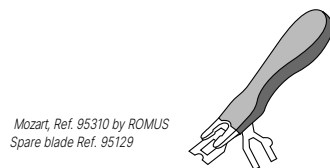
## WELDING

- Using a hot air welding gun and a speed welding nozzle, heat the rod and feed it into the grooved seam, ensuring it melts and fuses with both edges of the vinyl.
- The temperature and speed must be controlled to prevent burning the vinyl.
- Always practice on a left-over piece of material first to assure proper temperature and speed.

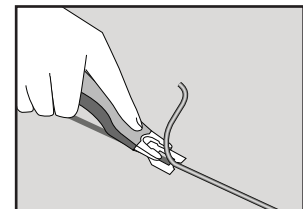


## TRIMMING

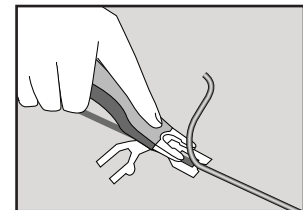
- Using a trimming tool, such as the Mozart, is recommended.
- A hot weld shall be flush, even and impervious, free from burns, scalping and crazing.
- Trimming must be done in two stages:



**First step:**  
First trim must be done with the thickness guide.



**Second step:**  
Second trim must be done with the trimmer only (without thickness guide). This step must be done when the weld rod is cold.



## 7. AFTER INSTALLATION

- Use broom/vacuum to remove all debris then damp mop the floor.
- Always protect the floor with thick paper, heavy duty cardboard or similar during the construction period.
- Restrict pedestrian traffic for 48 hours after installation.
- Do not allow rolling loads and installing furniture for 72 hours after installation.
- Ensure that the ends of chairs and table legs are suitable for vinyl flooring. Do not use rubber end caps as rubber can cause discolouration to the floor.