



kradalTM

SMART FOAM

IMPACT ABSORBING FLOOR

Installation Brochure



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Preparation of Site

Site Inspection

Site inspection must be completed by the floor contractor to determine any issues that may affect installation of suitability of the floor. This includes information such as position and depth of electrical cables, water pipes, additives in the subfloor, dampness, and water-vapour proof membrane and air-conditioning/ heating (AS 1884-2012 section 2 pages 10-11, also see AS 1884-2012 appendix C)¹

Overhead Work

Overhead work should be completed prior to floor installation (AS 1884-2012 section 4.2 page 19)¹

Underfloor heating and security systems

Underfloor heating and security systems should be checked. Underfloor heating should be turned off for 7 days prior and 48 hours after installation, and daily increases should not exceed 2 C per day, and temperature should never exceed 28 C (AS1884-2012 section 4 pages 18-20)¹

Room Temperature

Room temperature must be between 15 and 28 C in order to achieve appropriate adhesion (AS 1884-2012 section 4 pages 18-20)¹

Lighting

Installation areas must be adequately lit to make the installation process easier (AS 1884-2012 section 4.2d page 19).¹

Dampness

Area should be weather tight to avoid temperature or wet weather disruptions.

Preparation of Sub-floor

- Subfloor must be clean, dry, and free of deposits (AS 1884-2012 section 3 page 12)¹.
- The floor should be vacuumed or swept clean.
- All surface treatments should be removed from the subfloor, such as old adhesive and paint (AS 1884-2012 section 3 page 12)¹.
- Do not install over existing floor coverings such as existing resilient sheet or tile finishes (AS 1884-2012 section 3.2.3 page 13)¹.



**CHECK
CLEAN
DRY**

Concrete subfloor:

The surface should be in good condition with no damage, cracking, efflorescence or blistering (AS 1884-2012 section 3 page 12)¹.

Subfloor planeness should be no more than 4 mm deviation when tested under a 2000mm straightedge (AS 1884-2012 section 3 page 12)¹.

Subfloor smoothness to be no more than 1mm deviation under a 150 mm straightedge (AS 1884-2012 section 3 page 12)¹.

Mechanical techniques such as sanding can be used to flatten the subfloor.

For larger deviations, levelling compounds can be used and the manufacturer's instructions should be followed.

The pH of the subfloor must be measured (AS 1884-2012 appendix B)¹ and it must also comply with pH recommendations given by the adhesive manufacturer.

The moisture of the subfloor must be tested (AS 1884-2012 appendix A)¹. The in-situ probe test should be used whenever possible and relative humidity should not exceed 75%.

Three pH tests and three moisture tests should be performed for the first 100m², and there should be at least 1 additional test for each additional 100m².

Timber, plywood and particle board subfloor:

Re-nail the subfloor if necessary (AS 1884-2012 section 3.2.2 page 13)¹.

Beneath the subfloor should be properly ventilated (refer to AS 1884-2012 section 3.2.4 page 14)¹.

Damp subfloors should be left to dry until reaching a moisture content of less than 15% throughout (AS 1884-2012 section 3.2.5 page 15)¹.

Subfloor should be sanded, if necessary (AS 1884-2012 section 3.2.5 page 15)¹.

Sand-cement screed subfloors:

Should only be used when polymer additives are added so that the subfloor can achieve a compressive strength of 20 MPa and a tensile strength of 1.5MPa (AS 1884-2012 section 3.3 page 17)¹ .

Preparation of Underlay



Inspect the material for defects and check that the correct material quantity has been supplied.



Should be stored in the installation area for at least 24 hours so the flooring can reach the ambient temperature of the room (15-28 C) (AS 1884-2012 section 5.6.1 page 29)¹.



Ensure there is enough material for pattern matching, if this is relevant to the flooring.

Installation of Underlay

- At time of installation, underlay joint show-through shall not exceed 1 mm below 150 mm straightedge (AS 1884-2012 section 3 page 15)¹.
- Underlay installation must comply with AS/NZS 2455.1-19, Textile Floor Coverings - Installation Practice.
- Allow extra length for pullback when cutting material into manageable lengths.
- The seams need to be straight, and chalk lines can be used to achieve this.
- Allow all cuts to relax and condition for 24 hours before trimming and adhering.
- Trimming and adhering must be done on the same day.
- Start from the midpoint of the room.
- All joints are butt seamed neatly.

Installing the Vinyl Sheet

- Sheet direction should extend in the same direction and should be parallel to the longest straight wall.
- Cross joints in multiple widths should be staggered.
- T joints should not be placed in doorways (AS 1884-2012 section 5.1.2 page 21)¹.
- Seams should be parallel without gaps and peaking to provide an even finish.
- Floor coverings should not be placed over structural expansion joints or construction joints (refer to AS 1884-2012 section 4 page 20). Instead, a proprietary joint should be inserted and the floor covering terminated either side of the joint¹.
- Vinyl joints should not be located above Kradal joins
- Joints should be placed away from high stress areas (e.g. centre of walk ways and doorways). The flooring should be positioned so there is the least amount of joints as possible (AS 1884-2012 section 4.2 page 19)¹.
- Adhesives should be chosen based on the specific vinyl being used and adhesive instructions should be followed.
- Coving:
Where a floor covering is to be coved, they must be fully supported by a solid base (AS 1884-2012 section 4.2 page 20)¹ and should be in continuous contact with the substrate that it is being adhered to (AS 1884-2012 section 5.1.5 page 22)¹.
- The joint should be 45° back from the corner.
- Vertical joints may only be acceptable where the aesthetics of the installation is unacceptable with the cove and join in such close proximity.

- For wet areas, installation must comply with AS 1884-2012 section 5.2 (page 22)¹ and AS 3740⁴.
- Joints must be correctly hot welded in wet areas and wherever possible avoid joins in the shower area. Floor coverings joints should be a minimum of 300mm from a floor waste (AS 1884-2012 section 5.2.1.3 page 23)¹.
- Flooring in wet areas must be coved at least 150mm up the wall. Welds should not be made directly into the corner.
- Requirements for floor fall in wet areas (refer to AS 3740-2010)¹.
For shower with a vertical separation between the shower and the wet area, the recommended minimum fall to the waste shall be 1:100.
For all other areas (without a vertical separation), the minimum fall is 1:80.
- Cold welding may be used, following vinyl manufacturer recommendations. However, although hot welding is more expensive and time consuming, it is more waterproof, durable, and can withstand heavy traffic. Hot welding is also recommended by TS7 section 4.6 for healthcare flooring⁵.
- Hot welding should be carried out at least 24 hours after installation to ensure the adhesive has cured (AS 1884-2012 5.1.4)¹.
- TS7 section 145 - cover strips and transition strips may be used between different materials. These must be well designed as they could be damaged by wheeling and cleaning equipment or create a safety hazard¹.



Figure:
Hot Welding Vinyl Floor with Weld Rod



Figure:
Overlap Method¹

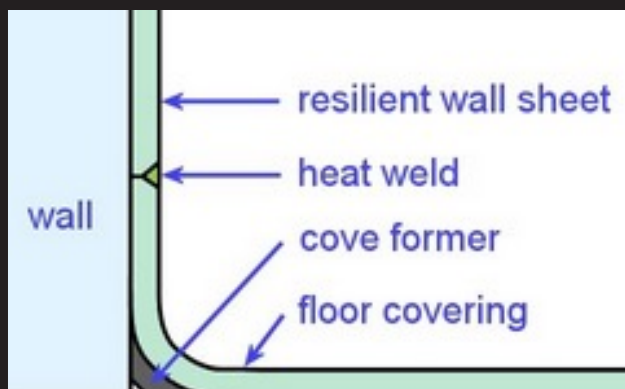


Figure:
Welded Method¹

1. Unit: Commercial Vinyl, "Coving Field Material". [Online].
- 2 "Movement and control joints in concrete and toppings",2014. [Online].
3. "what is the maximum floor length without expansion joints". [Online].
4. Standards Australia, "AS 3740-2010 Waterproofing of domestic wet areas", 2010.
5. NSW Health & CHAA UNSW, "TS7 Floor Coverings in Healthcare Buildings, V1.1", NSW Health Department, North Sydney, 2009.

Adhesive

- The relevant state and federal regulations should be followed, if adhesives that are classified as flammable or as hazardous goods are to be used¹.
- Where possible, adhesives without hydrocarbon solvents should be used (AS 1884-2012)¹.
- The correct adhesive temperature range for application should be followed and should not be less than 10°C (AS 1884-2012 section 4 page 20)¹.
- Adhesives shall be applied only to dry, clean surfaces.
- As work proceeds, all adhesives that contaminate the floor surface should be removed, and attention should be paid to avoid contaminating adjacent surfaces. (AS 1884-2012 section 4 page 20)¹.
- Remove excess adhesive from the surface while it is still wet (AS 1884-2012 section 4 page 20)¹.

Post Installation

- The contractor should remove excess trimmings and clean the flooring.
- No abrasive cleaning products, strong alkaline detergents, ammonia, chlorine detergents, acetones or undiluted bleaches should be used on vinyl (refer to TS7 4.8 Cleaning and Maintenance and Appendix C3)¹.
- Furniture pads should be used to protect the vinyl.
- Keep all traffic off the completed floor per adhesive and vinyl manufacturer guidelines.
- After installation, the floor should be kept dry per adhesive and vinyl manufacturer guideline.
- After the installation, the area should be shielded from direct sun light and the ambient room temperature should be maintained, per vinyl manufacturer instructions (refer to AS 1884- 2012 5.4.7 page 28)¹.



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