

Installation Instructions Vinyl Composition Tiles (VCT) Flooring

Excelon VCT

Please read all instructions before you begin the installation

Quick Reference Guide

Installation:	Conform to current AS / NZS 1884 standard and these Instructions.
Types of sub-floors:	Concrete, cement sheet, timber (with approved board underlayment).
Installation system:	Full spread pressure sensitive adhesive.
Adhesives (to be used to manufacturer's directions):	Use Armstrong Flooring recommended adhesives as set out in the Armstrong Flooring Recommended Adhesive guide or other reputable brand adhesives that have been tested with Armstrong Flooring VCT flooring products.
Trowel size:	V1 1.6mm deep x 1.6mm wide x 1.6mm apart or trowel as per adhesive manufacturers recommendation. Back roll adhesive to remove trowelled adhesive lines.
Special Instructions:	All boxes of Armstrong VCT Flooring products are marked with a 'batch number', which is located on the product packaging. Products installed in the same area should be from the same batch. Where installations require more than one batch to be used through one installation area, intermix or shuffle some boxes to blend between the different batches of tiles.

WARNING!

Resilient floorcoverings, adhesives and underlays manufactured in or imported to Australia prior to 1 January 1984 may contain asbestos. If it cannot be definitively established that the previous floorcoverings, adhesives and/or underlay do not contain asbestos

- You should avoid creating dust and should not sand, dry sweep, dry scrape, drill, saw, bead blast or mechanically chip or pulverise the existing floorcoverings, adhesives or underlay, and
- The previous flooring should only be removed by an appropriately licensed asbestos removal contractor.

To The Installer

Before cutting and installing Armstrong Flooring VCT floor coverings inspect the materials in a well-lit area to ensure correct product, colour, pattern and quantity (as ordered), that given areas are from the same batch and there are no obvious transit damage, manufacturing defects or other visual faults. Armstrong Flooring reserves the right to refuse an adjustment or claim for materials that are cut or installed where a reasonable inspection of the materials before installation would have identified the fault.

If there is a problem or doubt of any kind, then stop immediately and call Armstrong Flooring Customer Service on 1800 632 624 (AU) or 0800 449 649 (NZ).

Do not cut or install any damaged or defective material unless accepted, agreed and approved by all parties concerned.

Job Site Preparation

Prior to installation material and adhesive should be allowed to acclimatise to job climatic conditions for at least 24 hours at 15°C to 28°C.

Temperatures in areas to be covered should be maintained at a minimum 15°C to 28°C for 48 hours prior to, during and after installation. Never install the material if the temperature in the room is less than 15°C as per current AS / NZS 1884 section 4. Please note that cold subfloors have considerable influence on delaying the open and drying times of flooring adhesive.

Subfloors

The condition of the subfloor not only has an important bearing on the appearance of the finished installation but can dramatically affect the life and serviceability of the floorcovering. **Subfloor imperfections will show through the installed covering.**

It is essential, therefore, that the subfloor be dry, hard, rigid, smooth, level, porous, and free of old adhesive, dust, grease, paint or any other contaminant that may affect the adhesive from forming a secure bond to the subfloor surface. Note that contaminants such as oil, pens, asphalt, marking paint, crayons, etc. may cause discolouration and/or transfer through to the surface of the flooring.

Damp proofing must be undertaken in accordance with the National Construction Code and any other building requirements. Where required an effective damp proof membrane must be incorporated in the subfloor.

Concrete Subfloors

Concrete subfloors must be cured and completely dry. New slabs should dry for at least one day per mm of thickness. Concrete slabs in contact with fill, hardcore or the ground must have a damp-proof membrane to prevent entry of moisture. Waterproofing additives and curing compounds do not replace the damp-proof membrane. A moisture test should always be carried out prior to installation as per current AS / NZS 1884 Appendix A. RH Moisture vapor in concrete slabs should not exceed 80% relative humidity.

The surface of the concrete must be plane, smooth and sound and have no abrupt surface deviations as set out in AS / NZS 1884. Any contaminants which may prevent adhesive forming a secure bond must be completely removed by mechanical (e.g. diamond grinding or shot blasting) prior to the installation of floor preparation and/or floor coverings. If the surface is not satisfactory it should be repaired and levelled with a cementitious underlayment, applied according to manufacturer's recommendations.

Heated Subfloors

Flooring material can be installed over heated subfloors provided **the temperature at the surface of the slab does NOT exceed 28°C** otherwise discolouration or other material alterations may occur. If installing over a heated subfloor:

- Prior to the installation, the heating should be turned on for a minimum of 7 days prior to installation to remove traces of residual dampness that may be present in the subfloor.
- Heating should be turned off 48 hours prior to and during the installation to allow the subfloor to return to recommended installation temperature range.
- Heating should not be turned on until 48 hours after completion of installation to allow the adhesive to set and fully cure. Temperature can then be increased by 2 degrees per day until desired temperature is achieved.
- Maximum heating conditions should be avoided for a period of 7 days after installation to prevent any localised hot spots which may be detrimental to the adhesive bond and the floor coverings.

Strip Wood and Panelboard Timber Subfloors

A moisture test should be carried out prior to installation as per current AS / NZS 1884 Appendix A.

All timber subfloors must have **at least 450mm** of good cross ventilation under the floor to prevent subfloor moisture build up which would cause distortion and movement of flooring members, bubbling/lifting of the flooring and/or excessive movement of underlay resulting in any distortion showing through the flooring.

New timber subfloors should be rigid, sound and constructed of seasoned timber and free from excessive cupping and warping. Old timber subfloors should have all loose boards re-nailed and badly worn or damaged boards must be replaced. All timber floors must be sanded or planed to a clean level finish without undulations.

Overlay subfloor with hardboard or approved fibrous cement vinyl flooring underlay. The underlay sheets must be installed and fastened as per manufacturer's instructions. All board underlay end joints should be staggered. All joints and any raised edges of the underlay should be sanded smooth and level, leaving no deviation between sheet joints.

Hardboard underlay must be installed over structural grade particle board using the adhesive and fixing system specified by the board underlay manufacturer.

Clients should be advised of the potential for board underlay joints to show through in certain lighting conditions.

Existing Resilient Floors

Armstrong Flooring recommends the removal of existing resilient floor covering prior to the installation of new resilient floor coverings.

NOTE: Existing resilient flooring coverings may contain asbestos – see the 'WARNING' panel set out in these instructions.

Expansion/Construction Joints

Armstrong Flooring does not recommend that VCT floor coverings be installed across expansion/construction joints. Various expansion/construction joint covers are available and should be specified by the architect or agreed between the contractor and the client.

Installation

VCT tile can be installed using ¼ turn, all one way, Ashlar or brick pattern, or 45 degree diagonal design. The installation method should be approved by the client prior to installation.

1. It is important to start an installation of VCT from work lines that are true and square. Find the centre of the room, or larger area, by measuring the width of the room and divide in two, mark the centre point with a sharp pencil. Strike a chalk line through the two marks down the length of the room as set out in Diagram 1.

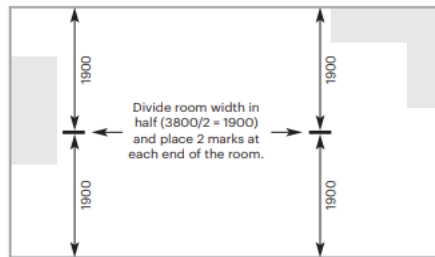


Diagram 1

2. Work out how many tiles down the length - see Diagram 2. Allow for at least a half tile cut in or as near to half as possible.
3. When you have established where the tiles will line up, pick where a tile joint will fall near the centre of the room, mark the edge of the tile on the centre line. Square off using the 3,4,5 method as shown in Diagram 3. This line needs to be true and square to the centre line.

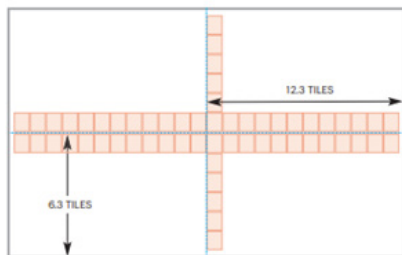


Diagram 2

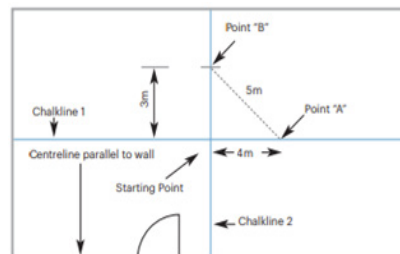


Diagram 3

4. Balance the installation side to side. If needed, strike a second parallel line to the first, the second line becomes the Working Line.
5. Make sure the floor is clean by vacuuming. Spread the pressure sensitive adhesive with the correct V1 notched trowel in the first half of the area, maintain the correct size of notch always.
6. Roll out the adhesive trowel line using a short nap (gloss paint) adhesive roller, a long handle will help when rolling the adhesive. To maintain the correct spread rate, pre-wet the adhesive roller with adhesive, this will prevent the roller from taking adhesive from the floor. Back rolling will give a more even coverage of adhesive, will shorten drying time, remove adhesive trowel lines and eliminate trowel line show through post installation.
NOTE: Vinyl composite tiles (VCT) are prone to adhesive trowel line show through, this is why back rolling of the troweled adhesive is required.
7. When the adhesive has dried to a clear state it is ready to install the VCT tiles. Start the installation from the centre of the room working along the two work lines to keep the installation square.
8. Using a steel straight edge along the centre line, set up along the chalk line at the starting point. Start laying the tiles to create a pyramid or stair case (see Diagram 4). The pyramid or stair case can go in both directions from the centre line, using this method will help to control tile creep. Continue moving the straight edge along the first row of tiles as required to maintain a true edge. Install all field tiles using the pyramid method.
NOTE: Avoid laying in blocks or rows of 3 or 4 tiles.

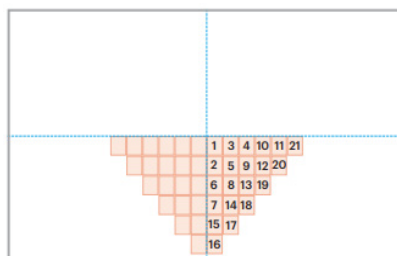
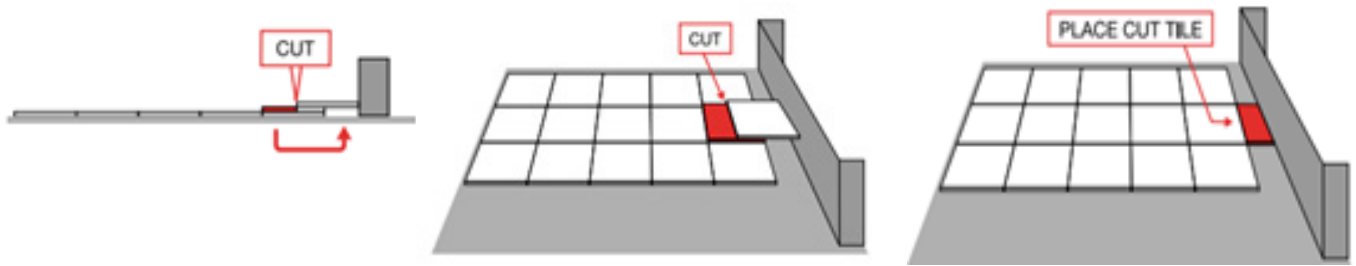


Diagram 4

9. Cut the tiles into walls and abutments using the tile on tile scribing method to mark the tiles, then cut the tiles with a sharp knife or guillotine and place the tile. Use the tile on tile method for around door frames, alternatively you can use the template method for door frames or odd shapes and angles.



10. Once all tiles are cut in, remove all off-cuts and debris from the floor in preparation for rolling. Remove any residual adhesive with warm soapy water and a clean cloth - best done as you go.
11. Roll the installed area in both directions with a roller, minimum 45kg (preferably a 68kg roller) to bed the tiles onto the pressure sensitive adhesive and create a strong bond.
12. Once the VCT installation has been completed, apply one coat of sealer/polish (e.g. PeerlessJAL Gemini) to manufacturers recommendations to protect the tiles during construction and until a complete strip and seal/polish can be performed.

Precautions During Construction

All VCT flooring should be protected during the construction period using a cardboard or paper-based floor protection system. Where additional or solid protection is required first install, cardboard or paper-based flooring protection system, and then rigid material over this (plywood, hardboard).

Surface protection should only be applied over clean floors. Do not apply tape or stick protection directly to the flooring. Do not allow water to sit on or under the protection materials (this can cause whitening/clouding of the surface of the flooring, which may be irreversible). Should the protection materials be exposed to water and become wet, the protection materials MUST be immediately removed. Allow the floor to dry, then re-apply surface protection.

Armstrong Flooring does not recommend the use of plastic materials for the protection of vinyl floor or wall products during construction (e.g. builder's plastic, corflute®, sticky back carpet or vinyl protector or films), as these materials can damage the floor/wall.

Post Installation

- Remove all debris (electrostatic dust mop or vacuum). Allow 48 hours before cleaning/sealing.
- Remove all floor preparation materials, any adhesive residue from flooring and skirtings/kick boards. Adhesive residue may be removed using a clean white cloth dampened with small amounts of mineral turpentine, carefully following warnings on container, immediately rinse with clean water (test in inconspicuous area first).
- Sealing - Complete one of the following options prior to handover:
 - Scrub floor using a pH 7.0-8.5 neutral cleaner (follow manufacturer's instructions). Rinse surface with fresh water. Ensure surface is completely dry then apply a minimum three (3) coats of high solids floor finish (e.g. Peerlessjal Gemini - follow manufacturer's instructions). Allow the surface to dry completely between each coat. Dry burnish.
 - If floor is badly soiled: strip back floor surface using a low alkali stripper. Rinse surface with fresh water. Ensure surface is completely dry, then apply a coat of high quality sealer. Allow the surface to dry completely then apply a minimum three (3) coats of high solids floor finish (e.g. Peerlessjal Gemini or HyShield - follow manufacturer's instructions). Allow the surface to dry completely between each coat.
- To allow for the setting and drying of adhesives, do not allow heavy rolling loads for at least 72 hours after installation. If rolling loads cannot be avoided, protect the flooring by covering with paper-based protection and then to disperse the weight cover this with rigid material (plywood, hardboard).

For detailed maintenance instructions please refer to the Armstrong Flooring Cleaning and Care Instructions for VCT Flooring products.

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