



MODULAR CARPET TILE INSTALLATION PROCEDURES & REQUIREMENTS

All Northstate – Modular Carpet Tile products must be installed in strict accordance with Australian Standard AS/NZS 2455:2007 (Parts 1 & 2), and Northstate’s Technical Bulletin – Modular Carpet Tile *Installation Procedures & Requirements*.

Please read this entire technical bulletin carefully prior to starting any installation.
Failure to comply with these instructions may void specific product warranties!

SITE CONDITIONS & FLOOR PREPARATION

1. Product Acclimatising – Ambient Temperature and Relative Humidity

All Northstate - Modular Carpet Tile and required adhesives must be allowed to acclimatise on site for a minimum of 24 hours prior to installation at a temperature between 15°C and 32°C, and a relative humidity between 30% and 65%. The temperature and relative humidity must remain within this range for the entire installation period, and for a minimum of 48 hours after installation is completed.

2. Floor Preparation

Each sub floor shall be inspected to determine the special care required to make it a suitable foundation for modular carpet tile. The sub floor must be level and smooth, clean and dry, and free of dust, dirt, paint, adhesive, oil, grease and any other contaminants that may adversely affect the installation and adhesion of modular carpet tile to the floor.

a) Concrete

New concrete shall be cured, clean and dry. At least 90-120 days are to be allowed for a concrete slab to cure and reach an acceptable dryness. It shall be free of curing and parting agents that interfere with the bonding of the adhesive. In order to prevent product and adhesive problems due to moisture and alkali, the owner or general contractor/builder shall be responsible for providing written moisture and alkali test results relating to the concrete slab **prior to the installation. The relative humidity must not exceed a ‘hygrometer’ reading of 70%, and the pH value must not exceed 9.** Moisture test results obtained from an *electrical resistance metre* that only uses non-penetrating surface contacts and not in situ probes (inserted electrodes), will not be considered as a valid test method.

Note: Moisture emissions in excess of the recommended levels can cause the adhesive to chemically break down and fail. This condition can result in the shifting, buckling, or edge curling of the modules.

Depressions and cracks must be filled with a compatible latex patching or levelling compound, in accordance with the manufacturer’s instructions.

Due to their porosity; new concrete floors, floors where a patch or levelling compound has been used, and existing old porous floors must be primed.

b) Wood

Hardwood, plywood, medium density fibre board (MDF), and medium density fibrous sheet used as sub-flooring must be of a flooring grade and installed to the manufacturer's specifications. Joints shall be filled and rough areas sanded smooth. Old finishes on existing wood floors must be checked for compatibility with adhesives and removed, if necessary. Rough and uneven areas shall be sanded smooth.

Due to their porosity; all porous wood sub floor areas must be primed.

c) Resilient Floor Covering

Modular carpet tile should not be glued down directly over existing sheet vinyl, homogeneous or laminated solid vinyl tile, and some rubber flooring products. These materials contain vinyl plasticizers which can migrate into the carpet adhesive and loosen the bond.

d) Terrazzo / Marble

Level all grout lines with a compatible latex patching or levelling compound, in accordance with the manufacturer's instructions. Polished and/or glossy surfaces must be sanded for adhesive bond.

e) Access Panel Flooring

To minimise air-floor leakage, maximise occupant comfort, and minimise operational costs, Northstate recommends the installation of all modular carpet tile products 'off grid' from the access panel seams.

f) Under Floor Heating

Elements must be turned off 48 hours prior to installation and not turned back on for a minimum of 48 hours after installation is completed in order to allow the adhesives to cure. Heated sub floor surface temperature must not exceed 27°C.

g) Healthcare Facilities

It is recommended for the sub floor to be sealed in all modular carpet tile installations in a healthcare facility.

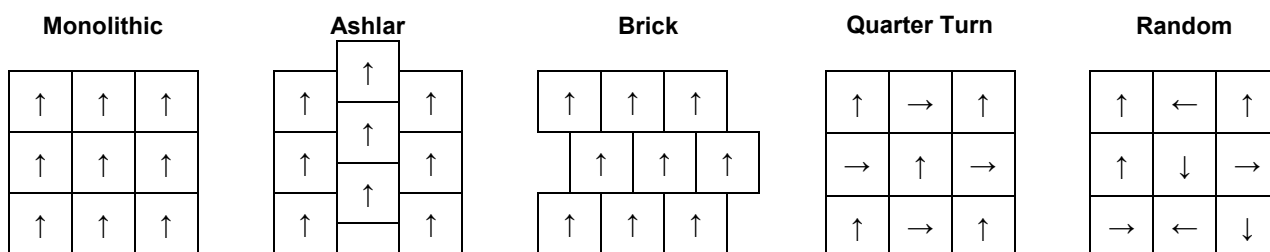
PLANNING AND LAYOUT

All facets of the installation are to be coordinated. A scale drawing of the area to be carpeted is required to determine metreages, metreage per dye lot &/or colour, adhesives, primers, sealers, edge treatments, mouldings, and other accessories.

1. Installation Geometry

Northstate recommends that the installation geometry (monolithic, ashlar, brick, quarter turn, random) and any feature and/or border designs be agreed upon by all parties ***prior to installation.***

Note: Please refer to the product specifications in regards to suitable laying direction. Some products have limited suitability for certain laying directions which may directly impact the desired installation geometry and design. Seams may be more or less apparent dependant on the geometry. The laying direction of the installation will not affect the performance of the product.



INSTALLATION

Northstate recommends using only premium quality and environmentally safe installation products.

1. Modular Carpet Tile

As a condition of Warranty, Northstate requires the inspection of the modular carpet tile ***prior to installation***. This inspection should include a thorough examination for;

- Product Type & Quality
- Style / Pattern
- Colour
- Dye Lots

Note: Installing Northstate – Modular Carpet Tiles by carton sequence will ensure the most even and uniform visual result.

2. Adhesive

As a condition of Warranty, Northstate requires that the adhesive used for the installation must, as a minimum, last and maintain proper adhesion throughout the entire warranty period of the modular carpet tile.

Northstate requires all Modular Carpet Tile products to be installed as per the ‘Pressure-sensitive system’, which requires pressure-sensitive adhesive be applied to cover 100% of the sub floor (including any cable trunking) or access panel floor.

Application of adhesive to the sub floor is to be via a short or long nap roller, flat trowel, or 1.6mm x 1.6mm x 1.6mm “V” notched trowel, depending on sub floor and environmental conditions. Adhesive is usually used in ‘dry mode’, allowing the adhesive film to completely dry and become clear before installing the modular carpet tiles. This method allows the modular carpet tiles to be more easily removed if repairs or replacement is required. If the modular carpet tile is laid into a wet film of adhesive, a permanent bond may occur. Coverage rates and open time will vary dependent upon environmental conditions and the porosity of the sub floor. Adhesives must be applied in strict accordance with the adhesive manufacturer’s instructions.

Note: Lack of adhesion is most often caused by moisture, contaminants, incorrect nap roller or trowel, improper adhesive selection &/or incorrect open time.

3. Fitting

Northstate recommends all modular carpet tiles to be fitted in a ‘stair’ method, sliding them into position to prevent yarn from being trapped between modules.

4. Tension Requirements

Modules must be installed using an even tension, and where practical a knee kicker may be advantageous to assist this process. To ensure abutment is correct, measure carpet tiles after every 10 modules are fitted. The additional space gained during fitting should equal 5mm measured over 10 modules (9 joins).

5. Rolling

Roll the modular carpet tiles within one hour of installation with a roller weighing 35-45kg (~75-100lbs.). Roll in both directions, whilst being careful not to over roll.

6. Transitions

Where modular carpet tiles transition to other floor covering material, Northstate recommends the tile edges be protected or covered with appropriate transition mouldings. For those edges where transition mouldings can not be used, the recommended finished pile height is 2mm above the adjacent floor finish.

Note: Improperly protected edges can lead to edge deterioration with unsightly results.