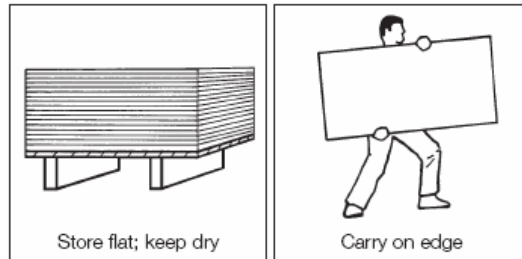


# Powerscape® Peace™ Concrete Installation Guide

## Storage and Transport

Powerscape® Peace™ Concrete must be stored flat on delivery pallets in a dry area and be allowed 48 hours to acclimatise to site conditions. Protect the product from the elements during delivery and storage.



## Handling and Cutting

Powerscape® Peace™ Concrete must be carried on edge to avoid bending of sheets. Powerscape® Peace™ Concrete can be cut using either the score or snap method, woodworking tools, a gypsum fibre power-shear or diamond blade tile cutter. To score and snap, press firmly and run a sharp blade across the foam face of the board to cut the foam and score the board. Brush or rasp off any burrs prior to placing the sheets (it is important that sheets are in full contact with the substrate and there are no significant gaps at sheet joints).

## Personal Safety

Powerscape® Peace™ Concrete contains no harmful levels of respiratory crystalline silica and no synthetic mineral fibres. Appropriate approved personal protective equipment should be used for all tasks being undertaken.

## Disposal

Dispose waste to sanitary, approved landfill.

## First Aid

Eye: Flush thoroughly with water for 15 minutes to remove particles of dust.  
If irritation persists, see a doctor.

Skin: Wash with water and mild soap.

Inhaled: Remove from exposure.

First Aid Facilities: Ensure washing facilities and eyewash station are available.

## Flammability, Fire/Explosion Hazard

Powerscape® Peace™ Concrete is not flammable under conditions of intended use and no fire or explosion hazard is known. The foam layer on the product prior to end use installation is reactive at temperatures greater than 160°C at its surface and flammable at temperature greater than 300°C.

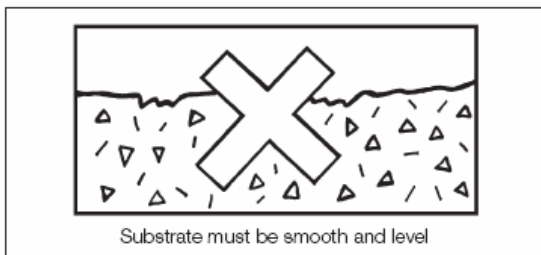
### Further Design Considerations

- Doors may need to be planed accommodate Powerscape® Peace™ Concrete
- A bull-nose is recommended to transition between floor finishes of different heights
- Longer fasteners must be placed through carpet fixing tracks to secure them to the structural flooring
- To optimise acoustic performance, care should be taken with penetrations, wall-floor junctions, and services. Engaging an acoustic consultant early on in the design process is recommended
- For the best acoustic performance it is recommended that Powerscape® Peace™ Concrete be laid beneath kitchen and bathroom units where possible Store flat; keep dry Carry on edge

### Installation Preparation

Install Powerscape® Peace™ Concrete after the concrete substrate has been prepared and when practicable after all levels have been constructed and slab post-tensioning is complete. Powerscape® Peace™ Concrete installation is recommended after plastering and stopping have completed their work. Alternatively use drop sheets to protect the finish of Powerscape® Peace™ Concrete.

Prior to installing Powerscape® Peace™ Concrete the concrete slab must be fully cured for at least 5 weeks and have a surface relative humidity not exceeding 75% when tested with a surface hygrometer. The concrete slab must be constructed to a tolerance not exceeding 5 mm when tested with a 3-metre straightedge placed anywhere on the floor, and have a smooth finish (i.e. no abrupt changes).



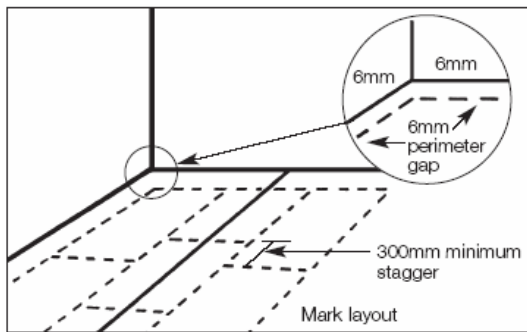
Remove all irregularities, curing compounds, laitance and any other contaminants likely to impair adhesion, including anything that restricts water absorption into the concrete slab, e.g. paint or epoxy coatings.

For the best acoustic performance it is recommended that where possible Powerscape® Peace™ Concrete be laid beneath kitchen, laundry and bathroom units, including appliances such as dishwashers, dryers and washing machines.

### Laying Powerscape® Peace™ Concrete

Plan sheet layout and sizes and mark them on the floor allowing for,

- 6 mm perimeter and control gaps as described later
- 100mm minimum sheet width
- Stagger sheet joints 300 mm minimum.



Carefully position the first sheet as it sets the orientation of the other sheets. Lay the first sheet in a corner leaving a 6 mm perimeter gap. The use of a removable 6 mm spacer may be helpful. Sheets must be touch-fitted. A chalk-line may be helpful to mark the layout.

Powerscape® Peace™ Concrete is fixed to the concrete slab using either Powerscape® Peace™ Acrylic Adhesive or Powerscape® Peace™ Polyurethane Adhesive. In most situations the acrylic adhesive is used. The polyurethane adhesive is used in the following situations:

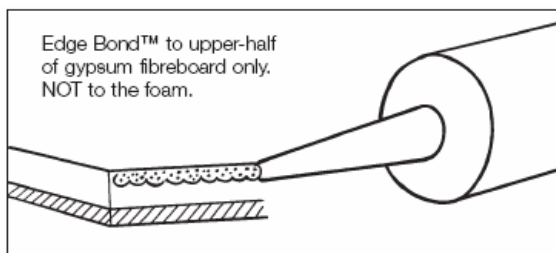
- The slab temperature will be less than 10 °C;
- The slab will have lower than normal moisture porosity due to the presence of a membrane or accelerator chemicals remaining in place;
- The slab flatness is close to the limit in allowable surface deviation.
- An extra firm surface is desired for especially sensitive final flooring finishing materials such as vinyl.

In all situations adhesive compatibility should be checked and tested before use. Sheet cutting and preparation should be completed prior to applying adhesive. Sheets should be applied one at a time.

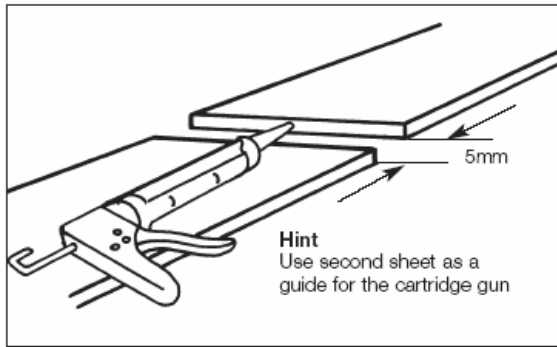
Spread Powerscape® Peace™ Acrylic Adhesive, or Powerscape® Peace™ Polyurethane Adhesive evenly using a 6 mm notched trowel inclined at a 20 to 30° angle (or 3 mm at 45°). Note that the adhesive has an open time of 15 minutes. Cover an area large enough for the sheet being installed plus 100 mm. Follow the directions on the adhesive pail.

Stand the first sheet on edge and lower into the adhesive, **foam facing down**. Apply pressure and work the board into the adhesive, by carefully treading or kneeling on the surface, or with a vinyl-laying roller. Take care the sheet does not skid from beneath you. Powerscape® Peace™ Concrete may be slightly repositioned for up to 15 minutes, provided the board is not lifted off the floor. If a sheet is lifted, the adhesive must be scraped off the foam and concrete using the flat edge of a trowel, and fresh adhesive must be applied. If the adhesive cannot be removed without damaging the foam, the sheet must be discarded. Apply Powerscape® Peace™ Acrylic Adhesive, or Powerscape® Peace™ Polyurethane Adhesive for the next sheet and a 3 mm bead of Powerscape® Peace™ Edge Bond to one sheet edge where the sheets join.

**Apply Powerscape® Peace™ Edge Bond™ to the upper half of the gypsum fibreboard only, and not the foam.**

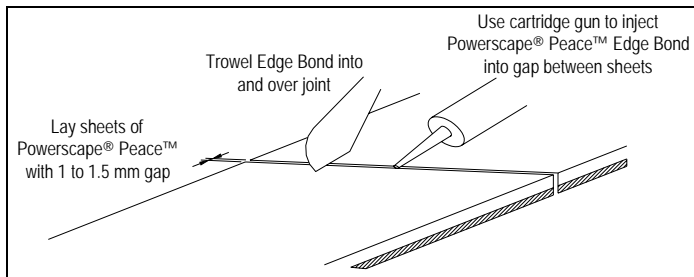


Hint: lay the second sheet of Powerscape® Peace™ Concrete, but leave a 5mm gap between it and the first sheet. Now use the second sheet's edge as a guide to rest and steady the Edge Bond™ cartridge gun on.



Work the next sheet into the wet adhesive, touch-fitting the joint. To ensure a strong joint, there should be no visible gap in the Edge Bond™, which can be used to fill joints up to 2 mm wide. Use a rag to wipe smooth (but not off) any Powerscape® Peace™ Edge Bond™ adhesive that oozes onto the sheet surface. The residual Edge Bond™ serves to reduce the likelihood of cracks telegraphing to tiles or vinyl. Maintain the 6 mm perimeter gap. Continue this process until installation is complete and allow a minimum of 30 minutes drying time for all adhesives. Light foot traffic on the surface is permissible at this stage.

An alternative method is to lay the Powerscape® Peace™ with a 1 to 1.5 mm gap between sheets. Powerscape® Peace™ Edge Bond can then be injected into the gap with a cartridge gun. The excess Edge Bond can then trowelled into and over the joint.



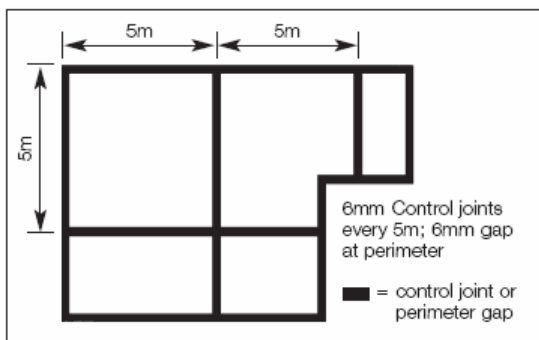
### On completion

Ensure that,

- all joints are flush
- the 6mm perimeter gap is clean and free from debris (preferably by compressed air)
- the surface is dry and clean for the next trade
- gaps less than 2mm between sheets are filled
- no gaps greater than 2mm between sheets
- control joints filled with a **flexible** sealant

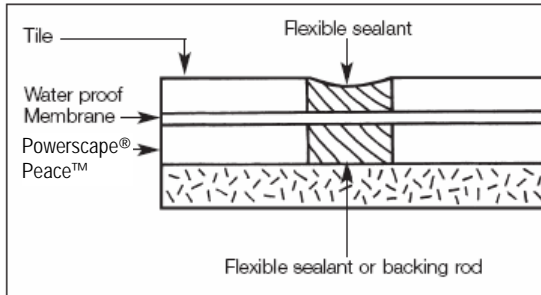
### Perimeter Gap

Some floor finishes and waterproofing systems may require that the perimeter gap be filled. If so, use either a foam sealant or a backing rod with flexible acoustic sealant.



## Control joints

Provide control joints at intervals not exceeding 5 metres in either direction, above substrate control joints, and between rooms or spaces. The control joint consists of a 6 mm wide break filled with a flexible acoustic sealant. Failure to use a flexible sealant will restrict movement and acoustically couple the system to the concrete slab. Control joints must also be carried through floor finishes such as ceramic tiles.



## Waterproof Membranes

Waterproof membranes must be applied to Powerscape® Peace™ Concrete in wet areas. The membrane must be applied to the **top surface** of Powerscape® Peace™ as this will prevent moisture build up in the acoustic underlay. Moisture build up can result in acoustic performance degradation, increase the potential for toxic mould and odour formation, and product degradation.

Only BRANZ or CSIRO appraised membranes must be used.

In wet area applications provide,

- Sufficient fall and drainage
- Sufficient flashing and sealing of all penetrations
- Sufficient detailing to allow for differential movement
- Integration of the floor and wall waterproofing systems

## Falls

Where practical it is recommended that Powerscape® Peace™ Concrete is installed beneath toppings required for falls.

