

# Concrete by Harper and Sandilands

## Installation Specification

Concrete is designed for installation in domestic and commercial interiors. An innovation in flooring Concrete was born from a brief which asked for a sustainable and more environmentally sensitive alternative to traditional floor coverings, whilst also being quicker and more economical to install than conventional poured concrete systems. Each panel is produced using the latest machine technology to engineer what is ultimately a natural product that is fully biodegradable. There are no harmful chemicals used in the production, raw materials make up the bulk of the product which are minerals such as magnesium oxide and cement. The resulting panels are set outside to air cure, giving each surface a unique patination which only occurs in nature. Once cured the panels are kilned to produce an ultra-durable floor that is both tactile and aesthetically pleasing. The aesthetic qualities are further enhanced with a natural oil coating which seals the floor and allows for easy care & maintenance. Able to absorb and maintain ambient temperature concrete floors are ideal for under floor heating, storing the warmth and optimizing the energy efficiency of the heating system. Concrete is available in 3 colours - White (floor), Natural White (wall), Natural Grey & Dark Grey (floor & wall). The floor panels are 1200x300x14/4mm and the wall panels are 1200x600x4mm.

### Pre-Installation Considerations

**Wastage allowances:** We recommend a minimum wastage factor of 10%.

**Prefinished Panels:** Our panels require no additional finishing treatment once laid, however care must be taken to remove glue residue during installation. Protection of the floor from damage is also important from other trades and traffic.

**Removal of Glue Residue:** It is vital that all glue residues are removed immediately after installing pre-finished panel. If using "Bostik Ultraset SF" (recommended for floor panels) to glue down, use the "Bostik Wipes" or a solvent suitable to the glue being used. Always test solvents first on an off-cut to establish that the solvent does not affect the colour or finish.

### Installation Methods for 1200x300x14mm Concrete Floor Panels

#### **Installation over a concrete slab:**

- **Preparation of the slab:** The concrete must be structurally sound, dry (no more than 5.5% moisture content), level and cleaned of waxes, adhesives dust etc. Slabs must be level with no more than a 3mm deviation over a 3 metre radius. If deviations are greater than above, use a self-levelling compound (e.g Ardit) or grind the slab to level the surface within the above tolerance. It is important to consider the possible risk of sub slab water ingress from surrounding areas. A relative humidity & moisture content reading is required prior to installation, please document readings for your records. If moisture content is more than 5.5%, please contact us for further advice.
- **Installation of panels by direct sticking the panels to the slab:** Over a prepared slab (see above re: slab preparation). Glue the panels with Bostik Ultraset SF to the slab using a 3-6mm notched trowel held at a 90 degree angle to the floor. Spot weight across the floor and weight any hollow or drummy areas to ensure floorboard and subfloor contact.
- **Installation of panels onto ply over concrete slab:** Over a levelled slab lay thick polythene sheet as a moisture barrier. Overlap each sheet by 150mm and attach the overlaps using a 50mm wide double sided tape. Lay the ply over the polythene sheet in the opposite direction (cross laminate) to the intended direction of the floor. For example; place

the long length of the ply perpendicular to the direction of the panels. Attach the sheets to the slab using pre-drill sleeve pins only, at a rate of 28 pins per 2400mm x 1200mm sheet. Level ply as necessary by plane. Rough sand ply and glue using Bostik Ultraset SF applied with a 3-6mm notch trowel to the ply.

- **Installation of panels by direct sticking to slab with acoustic matting:** The matting system is a requirement in multi-residential developments to reduce noise transfer. We suggest the use of **ImpactaMat** which is available in 3mm & 5mm thicknesses or **Regupol** which is also available in various thicknesses. Over a prepared slab (see above re: slab preparation) the matting will need to be applied to the slab with Bostik Ultraset SF using a 3mm notched trowel and allowed to dry to the manufacturer's specifications. Glue the panels directly to the matting with Bostik Ultraset SF also using a 6mm notch trowel. Spot weight across the floor and weight any hollow or drummy areas to ensure floorboard and subfloor contact.
- **Underfloor Heating Options:** In-slab and above-slab heating systems can be used under the Concreate flooring. In-slab heating uses either electric or hydronic heating elements which are embedded in the slab. If using in-slab heating we recommend our direct stick to slab method (above). It is important that the total installed thickness is no greater than 20mm otherwise the insulating properties of the timber reduce the effectiveness of the heating system. Any air gaps between the panels and the heating system should be avoided, hence why spot weighting across the floor is very important.

#### **Installation over structural timber flooring or existing timber strip flooring:**

- **Installation over structural timber flooring (eg. Chipboard or Yellow Tongue):** Rough sand the timber substrate then glue using Bostik Ultraset SF applied by 3-6mm notch trowel to the ply.
- **Installation over existing timber strip flooring:** It is important to ensure that existing floors are sound and free of rot etc prior to installation of new flooring over top. If running the panels in the opposite direction to the existing timber floors, the boards can be glued directly to the substrate with a 3-6mm notch trowel. The substrate **must** be sanded & level with no more than a 3mm deviation on a 3mm radius. If installing in the same direction as existing flooring, a 6mm ply must be pinned down over the existing floor to create cross lamination. This minimises movement between the existing timber floor and new timber floor. Rough sand ply and glue using Bostik Ultraset SF applied by 3-6mm notch trowel to the ply.

#### **Installation as a floating floor:**

Concreate can be installed as a floating floor however this is our least preferred method of installation. The substrate must be level with no more than a 3mm deviation over a 3mm radius. The panels must be fixed at the perimeter & transition areas. A 2mm FRIM high-grade underlay **must** be used.

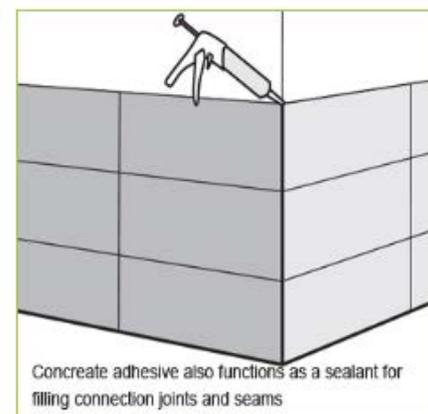
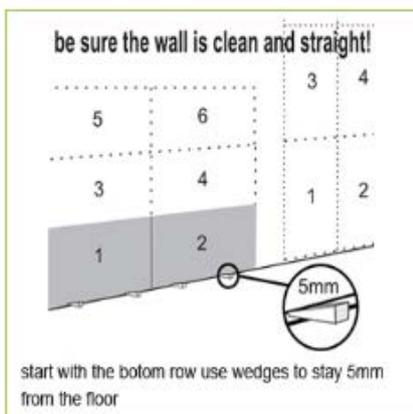
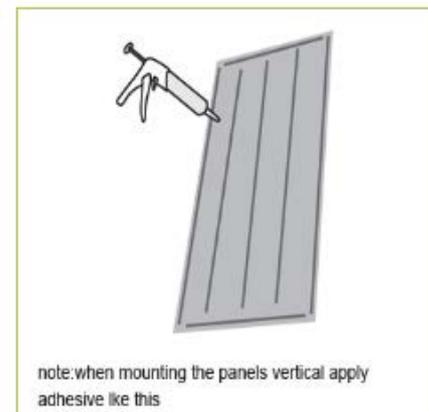
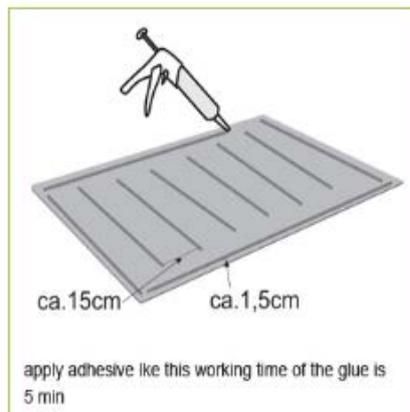
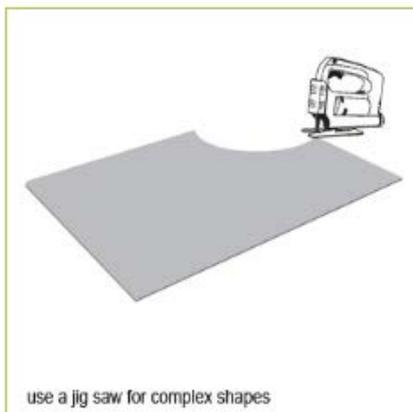
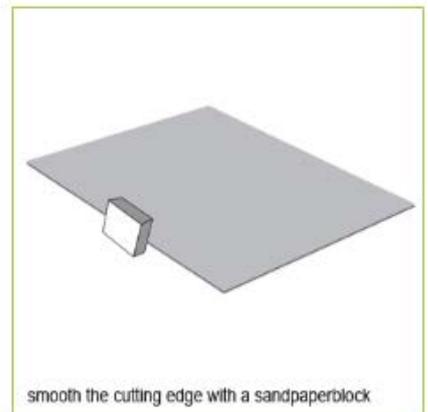
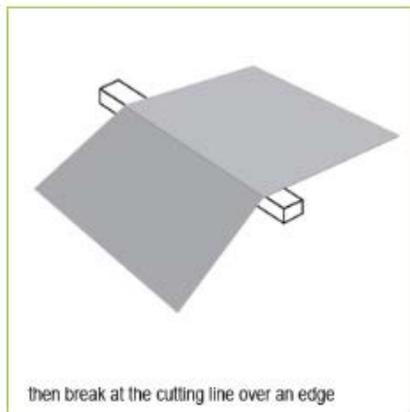
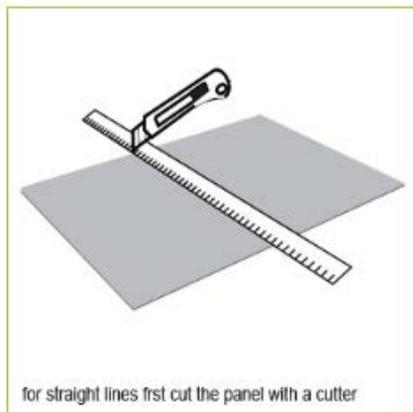
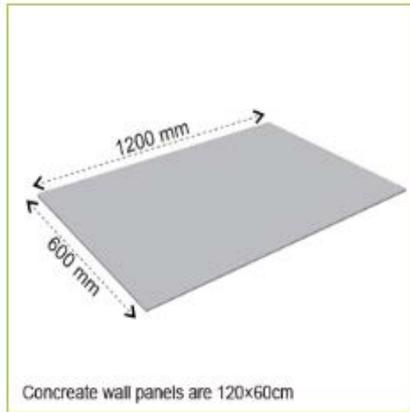
***We do not suggest the installation of our panels directly over battens or bearers & joists. Please call us to discuss further if you have any questions.***

#### **Installation Methods for 1200x600x4mm Concreate Wall Panels**

- **Installation of panels onto wall or ceiling:** We supply the glue for Concreate Wall & Ceiling applications. It is important that this glue be used as it is specially designed for the Concreate wall panels. It is not suggested other glue be used as other glues may penetrate into the product and create shadowing from the visual side of the panel.
- **New walls:** It is best to sheet out with ply in order for the panels to be glued too as it grips well.

- **Existing plaster or painted walls & ceilings:** The use of brads or fine nails is beneficial when installing onto ceilings or existing walls clad with existing plaster or painted walls until the glue dries. Holes can be patched up with our Concrete repair kit.
- **Existing concrete or block walls:** will need to be battened out and sheeted with ply prior to installation of panels.

Please refer to the diagram below for further wall installation instructions:



## **Post-Installation Considerations**

**Caulking:** As the panels are engineered, the need for expansion allowances is minimal. We suggest a 3mm gap be left between boards & skirting. Caulk out the gap with silicone in a colour to match the floor or skirting.

**Transitions:** In most cases a 3mm aluminium flat bar is used as a transition between panels and other floor finishes.

**After installation/Builders Clean:** If dust is present, vacuum immediately, do not mop. Moisture can set plaster dust into the surface of the panels making it very difficult to remove if not impossible. After all dust has been removed we have a Woca Intensive Wood Cleaner available if required.

**Floor Protection during construction:** It is preferred that the panels are laid as late as possible in the project to prevent the boards from being damaged by other trades as they are prefinished. Should further work need to be done on the project after installation has been completed it is essential that the floor be protected using a 2mm foam underlay and a 3mm or 4mm MDF sheeting over top that is securely taped together (do not apply tape to the finished floor) or other protection method.

**Concrete Repair Kits:** In case of damage, you can easily repair with our repair kit. Mix the repair powder with water to reach a thick paste & apply it onto the damaged area with a trowel. Clean the surface with the damp cloth and let the cement mix dry. Once the repaired area is dry, apply the repair oil twice waiting 24hours before the second application. Carefully choose the oil colour corresponding to your panel colour.

**Regular Cleaning and Maintenance:** Our recommended cleaning & maintenance range WOCA is available direct from our showroom or available for postage if the project is interstate. Please refer to the care instructions for Natural & UV Oiled floors on our website under specifications and installation for further information-

[http://www.royaloakfloors.com.au//app/uploads/2014/02/ROF\\_Cleaning-Guide\\_Natural-UV-Oiled-Floors.pdf](http://www.royaloakfloors.com.au//app/uploads/2014/02/ROF_Cleaning-Guide_Natural-UV-Oiled-Floors.pdf)

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