VipaBoard

Fixing Instructions (quick guide)

PCS High Performance Construction Products

Note: Enhanced detailed fixing instructions which provide additional advice for applications not covered in this quick guide is available for download at www.pcsboard.com

VipaBoard Surface Preparation.

Note: VipaBoard is not compatible with solvent-based adhesive and ready mixed adhesive, therefore such adhesives must not be used.
When fixing VipaBoard with tile adhesive, use a good quality cement-based, flexible, fast setting tile adhesive that meets classification C2 S1 or above.
The advisory notes below provide a quick overview for the preparation of the VipaBoard surface prior to applying floor finishes. It is important to plan in advance for any levelling screed or surface preparation of the VipaBoard that may be required prior to fitting floor finishes.

I. For Soft floor finishes e.g. Vinyl & Carpet, it is essential to cover the VipaBoard surface with a minimum 10mm thick, flexible, cement-based levelling screed.
II. Wood planking and Wood Laminate can be fitted directly over the VipaBoard surface, however, for commercial projects subject to heavy foot traffic, we recommend covering the surface of the VipaBoard with a minimum 10mm thick, flexible, cement- based levelling screed.
III. For Solid Wood fixed with adhesive, the surface of the VipaBoard must be covered with a minimum 10mm thick cement-based, flexible, levelling screed.
IV. Porcelain, natural stone and ceramic tiles, can be applied directly onto the surface of the VipaBoard, however, for commercial projects, subject to heavy loads, we recommend covering the surface of the VipaBoard with a minimum 10mm thick, flexible, cement- based levelling screed, prior to fixing tiles.
V. VipaBoard is compatible for use with highly flexible synthetic render systems. Traditional sand/cement render types are not compatible.

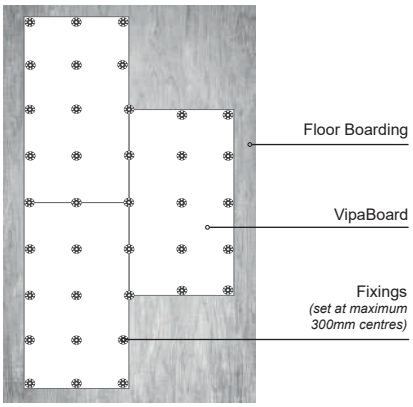
1. Fixing to Timber Floor Boards : Structural Design Consideration

VipaBoard is NOT designed to be directly fixed onto timber joists, therefore it is essential that all joists are overboarded with a suitable flooring material, such as Plywood/Chipboard Planks/T&G boarding etc. before VipaBoard is fitted.
Adhesive must be cement based and meet C2 S1 classification- Solvent based and ready mixed adhesive must not be used.
Note: 4mm thick VipaBoard is not suitable for fixing onto timber floor boarding.
VipaBoard 6mm thick and above is suitable for fixing onto timber floor boarding.
NOTE: WHEN USING SCREWS TO FIX VIPABOARD MAKE SURE TO AVOID ELECTRICAL CABLES OR PIPEWORK THAT MAY BE CONCEALED UNDER THE FLOOR.

<u>Fixing onto timber floor boarding using fixing washers and screws only</u>
(no adhesive)
VipaBoard can be secured directly to timber floor boarding using 35mm diameter fixing washers and suitable screws with a countersunk head, set at a maximum of 300mm centres (e.g. 15 fixings per 1200mm x 600mm VipaBoard). It is acceptable to place fixing washers directly along the board edge so that they can secure adjacent boards reducing the amount of fixings required. Ensure that the VipaBoard is in full contact with the floor surface and that there is no movement, or hollow spots. Additional fixings can be used if required to ensure no hollow spots remain beneath the VipaBoard.

NOTE: Securing VipaBoard to floor boarding using washers and screws (no adhesive) facilitates easy removal of the VipaBoard from the floor boarding (if required in future years) for refurbishment and modernisation of the flooring.

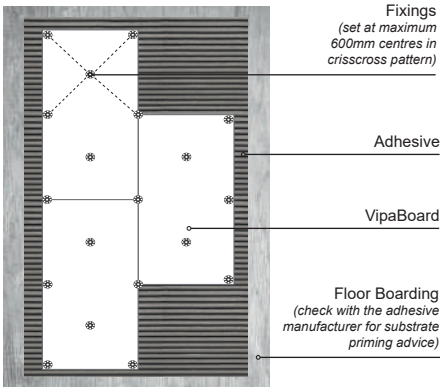
Indicative fixing detail using washers & screws only (1200mm x 600mm VipaBoard)



<u>Fixing onto timber floor boarding using C2 S1 cement-based tile adhesive and 35mm diameter fixing washers</u>
(Refer to the adhesive manufacturer's instructions for the preparation and priming of the structural boarding, prior to starting your project)

The adhesive should be applied directly onto the floor boarding using an 8-12mm notched tiling trowel. Ensure full adhesive contact with the VipaBoard surface; Fix in a brick bond style ensuring that no hollow spots remain under the VipaBoard. In addition to the adhesive bed, VipaBoard must also be secured with 35mm diameter fixing washers and a suitable countersunk screw once the adhesive has set. The spacing for the fixing washers should be set at 400mm - 600mm centres (e.g. 8 fixing washers per 1200mm x 600mm VipaBoard). The fixing washers should be staggered creating a crisscross pattern. The fixing washers can be used to span across adjacent VipaBoard reducing the amount of fixings required. Additional fixings can be used if required to ensure no hollow spots remain beneath the board.

Indicative fixing detail using adhesive, washers & screws (1200mm x 600mm VipaBoard)



2. Fixing to Solid Floors

Fixing onto concrete / cement screed / asphalt and other similar solid substrates using cement-based tile adhesive.

For Calcium Sulphate / Anhydrite / Gypsum screeds, advice must be sought from the adhesive manufacturer regarding the preparation of the screed prior to applying fixing adhesive.

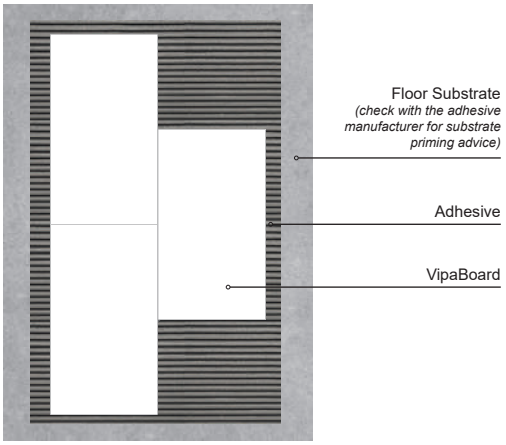
(Refer to the adhesive manufacturer's instructions for the preparation and priming of the substrate, prior to starting your project)

Note: VipaBoard of all thicknesses is suitable for fixing onto solid floors.

Newly poured concrete and screed should be fully cured, and have a moisture reading no greater than 75% Relative Humidity (RH) as per BS5383 prior to fixing the VipaBoard. We recommend sealing any porous floor substrate with a suitable water-resistant primer before adhesive is applied. Fix VipaBoard using a good quality cement-based, flexible, fast setting tile adhesive that meets classification C2 S1 or above.

The adhesive should be applied directly onto the floor using an 8-12mm notched tiling trowel, ensuring full coverage to the VipaBoard surface; solvent-based or ready mixed adhesives must NOT be used. Fix VipaBoard into the adhesive in a brick bond style, abutting the VipaBoard surface with adjacent VipaBoards as you proceed. Make sure no hollow spots remain under the VipaBoard.

Indicative Fixing Details using adhesive
(1200mm x 600mm VipaBoard)



3. Fixing to Internal Stud Framework : Structural design consideration

VipaBoard fixed over plasterboard lined stud framework is fixed using the same detail as fixing VipaBoard over unlined studs.

VipaBoard 4mm thick is not suitable for use onto walls.

VipaBoard 6mm thick is not suitable for use over unlined or plasterboard lined stud framework, VipaBoard 6mm thick can be used over plywood lined stud framework as additional fixings can be secured into the plywood.

VipaBoard 10mm thick and above is suitable for use over unlined and lined stud framework.

Fixing directly onto internal stud framework and onto stud framework lined with plasterboard

(Fix using 35mm diameter washers and screws)

Note: VipaBoard must be 10mm thick or greater for use over unlined and plasterboard lined stud framework.

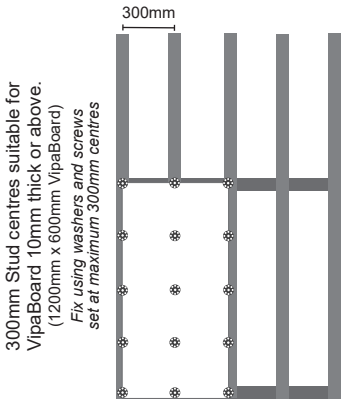
For 10mm thick VipaBoard, vertical studs should be set at maximum 300mm centres.

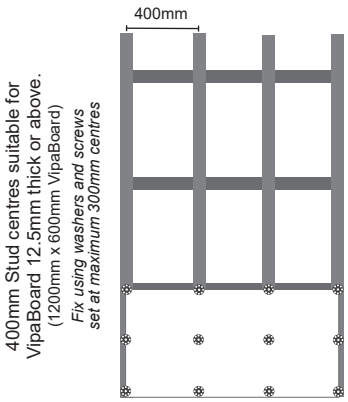
For 12.5mm thick VipaBoard, vertical studs should be set at maximum 400mm centres.

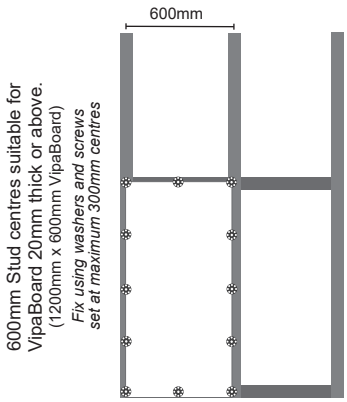
For VipaBoard 20mm thick and above, stud centres can be set at maximum 600mm centres.

Timber noggins MUST be installed between vertical studs and positioned to support the edges of the VipaBoard.

Fixing washers and screws should be set at maximum 300mm centres on vertical stud framework and also fixed into the intermediate noggins on 600mm stud centres (e.g. 15 fixing per 1200mm x 600mm VipaBoard on 300mm studs, 12 fixing per 1200mm x 600mm VipaBoard on 400mm and 600mm studs)







4. Fixing to Masonry Walls: Structural design consideration:

For walls above 2.4mtrs in height, adhesive and fixing dowels must be used to secure the VipaBoard to the masonry wall. For walls under 2.4mtrs, VipaBoard can be fixed using adhesive only without the need for fixing dowels. For masonry walls that have a plaster or cement finish, adhesive and fixing dowels must be used. Fixing dowels must be of sufficient length to securely anchor into the masonry wall by a minimum 50mm.

VipaBoard should be fixed to masonry walls using a good quality cement-based, flexible, fast setting tile adhesive that meets classification C2 S1 or above. Solvent -based, ready mixed and dry wall adhesive must not be used.

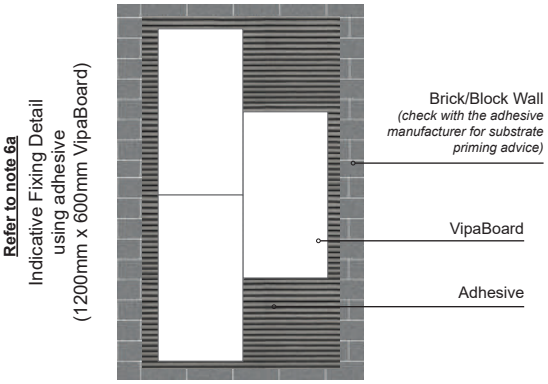
Note: 4mm thick VipaBoard is not suitable for fixing onto walls.

VipaBoard 6mm thick and above is suitable for solid bed fixing onto masonry walls.

Fixing to Internal Masonry walls

(Fix using a solid adhesive bed. Fixing dowels will also be required if the wall has a cement or plaster finish)

The adhesive should be applied directly onto the wall using an 8-12mm notched tiling trowel, ensuring full coverage to the VipaBoard surface. In certain circumstances, for example uneven walls, it may be necessary to back butter the VipaBoard in addition to the adhesive applied to the substrate. Place the VipaBoard onto the wall surface, and bed firmly into place. Make sure there is good compaction of the VipaBoard into the adhesive, and that no hollow spots remain under the VipaBoard. Stagger VipaBoard joints by fixing the VipaBoard in a brick bond style.



Dowels are not required when fixing VipaBoard over clean block work under 2.4mtrs.

Fixing to Internal Masonry Walls with Gypsum/ Cement Finishes

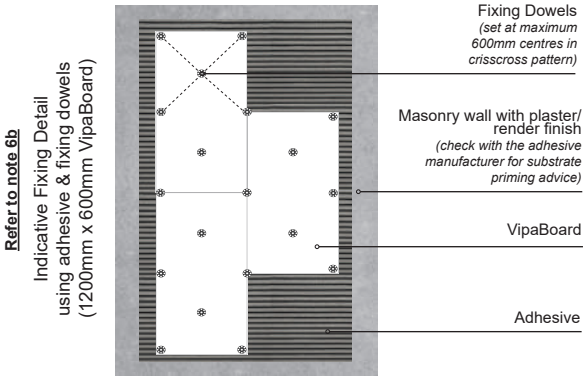
If the wall has a gypsum or cement finish and is in a good condition, it may be possible to fix the VipaBoard onto the wall without removing the existing finishes; however professional advice on the stability of the wall structure and wall finishes should be sought. All masonry, cement, and gypsum wall surfaces must be sealed with a suitable primer, prior to applying the cement adhesive.

The adhesive should be applied to the wall surface using an 8-12mm notched tiling trowel, ensuring full coverage of the VipaBoard surface. In certain circumstances, for example uneven walls, it may be necessary to back butter the VipaBoard in addition to the adhesive applied to the substrate.

In addition, once the adhesive has set, VipaBoards MUST be fixed with PCS fixing dowels set at 400mm - 600mm centres (e.g. 8 dowels per 1200mm x 600mm VipaBoard.

Position the fixing dowels creating a crisscross pattern on the VipaBoard surface.

Additional fixings can be used to secure the VipaBoard firmly to the wall substrate.



Dowels are required when fixing VipaBoard over plaster/cement finishes.

Dot and Dab onto Masonry Walls (internal walls only)

(fix with cement-based adhesive dots and secure with fixing dowels)

DRYWALL ADHESIVE MUST NOT BE USED.

Note: VipaBoard must be 12.5mm thick or greater for fixing with Dot and Dab method.

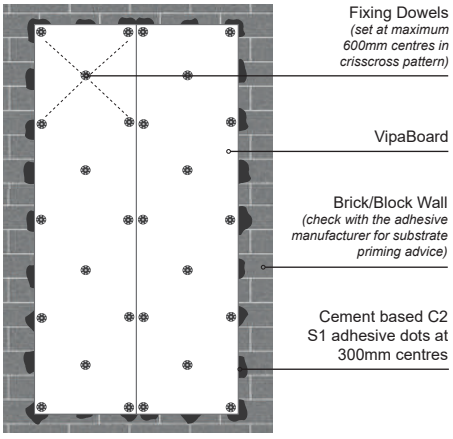
If the wall has a pre-finished surface e.g. plaster/render, and is in a good condition, it may be possible to adhere the VipaBoard without removing the existing finish, however professional advice on the stability of the existing finishes and wall structure should be sought. All masonry walls, and cement and plaster finishes must be sealed with a suitable primer before cement adhesive is applied. The adhesive dots must be cement-based, flexible, fast setting tile adhesive that meets classification C2 S1 or above (dry wall adhesive must not be used.

The adhesive dots must be applied directly to the VipaBoard with dots set at a maximum 300mm apart. To avoid adhesive shrinkage, the tile adhesive dots must not exceed 15mm thickness once compressed to the wall substrate. Place the VipaBoard onto the wall surface, and bed firmly into place in a brick bond style. In addition to the adhesive dots, VipaBoards must be secured using fixing dowels anchored with a minimum 50mm embedment into the masonry wall. Position the dowels through the centre of the adhesive dots once the adhesive has set.

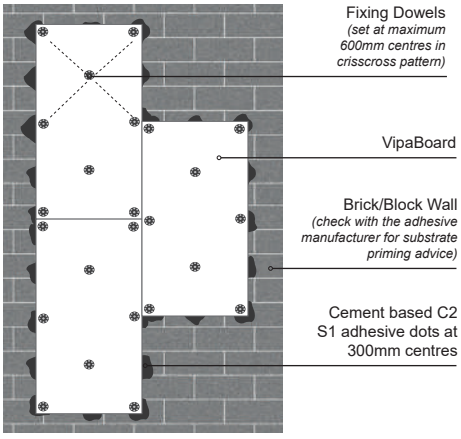
Place dowels between 400mm and 600mm centres (e.g. 8 fixings per 1200mm x 600mm VipaBoard). Position the fixing dowels creating a crisscross pattern on the VipaBoard surface.

Additional fixings can be used to secure the VipaBoard firmly to the wall substrate.

Indicative Fixing Detail
using adhesive dots and fixing dowels
(2400mm x 600mm VipaBoard)



Indicative Fixing Detail
using adhesive dots and fixing dowels
(1200mm x 600mm VipaBoard)



5. Taping Joints, Abutments and Fixings

All VipaBoard joints, abutments and mechanical fixings must be bridged with a joint reinforcing tape, suitable for the intended use and the environment in which the VipaBoard is to be installed.

For VipaBoard fixed in dry zones: Tape all joints, fixing washers, and holes in the VipaBoard using an alkaline resistant mesh such as PCS Joint Reinforcing Tape.

For VipaBoard fixed in wet zones: Tape all joints, fixing washers, and holes in the VipaBoard with PCS Waterproofing Paste and PCS Waterproofing Tape.

6. Expansion/Movement Joints

VipaBoard must not bridge expansion/movement joints. The integrity of such joints should be maintained through the VipaBoard and tile bed and should be sealed in the appropriate manner.

7. VipaBoard with Soft Floor Finishes

(Carpet & Soft Vinyl flooring less than 5mm thick)

When installing soft floor coverings over VipaBoard, it is essential that the surface of the VipaBoard is covered with a minimum 10mm thick hard-wearing, cement-based, flexible, levelling screed, capable of resisting high point loading. Tape all VipaBoard Joints before applying the levelling screed. The cement levelling screed must be left to cure before floor finishes are applied.

Note: VipaBoard is not compatible with solvent based adhesives. If solvent adhesive is required to fix floor finishes, the surface of the VipaBoard must be covered with a cement based, flexible, levelling screed, applied at a minimum thickness of 10mm.

8. VipaBoard with Click Floor Wood Plank / Laminate / LVT

(Rigid Click floor coverings greater than 5mm thick)

There are many different types of tongue & groove wood plank, click laminate and click LVT flooring available, some of which are manufactured using a soft-core material. The advice below is for hard wearing, rigid, click floor coverings that are greater than 5mm thick.

For domestic projects, if the floor is flat and level, tongue & groove wood plank / click laminate / click LVT can be fitted directly over VipaBoard.

Lay the wood plank /laminate / LVT after fitting a foam underlay over the surface of VipaBoard. The type of underlay used will depend on the type of wood plank / laminate / LVT used. It is important to use a low thermal resistant underlay if underfloor heating is present.

For commercial projects and where heavy foot traffic and excessive loadings are expected, the VipaBoard surface must be covered with a minimum 10mm thick, hard-wearing, cement-based, flexible, levelling screed capable of resisting high point loading.

Tape all Board Joints before applying the levelling screed. The cement levelling screed must be allowed to cure before floor finishes.

9. VipaBoard with Underfloor Heating

VipaBoard is a thermally insulating construction board, and when installed below underfloor heating will improve the heating system performance by significantly reducing downward heat loss. VipaBoard is compatible for use with water based and electric cable underfloor heating systems. VipaBoard must not be fixed over floors that have an existing underfloor heating system installed.

10. Tile Choice for Floors

When choosing tiles for your floor it is important to consider point loading. Applying larger tiles improves the VipaBoard resistance to concentrated loads. For areas that may be subject to concentrated loads over 0.21 N/mm2, advice should be sought to determine suitability. All tiles must be fixed using a solid bed of adhesive, ensuring no voids remain under the tiles. Tiles should be fixed using good quality, flexible cement-based tile adhesive that meets classification C2 S1 grade or above. Solvent-based or Ready Mixed adhesives MUST NOT be used.

11. Tile Fixing to Walls

Tiles can be fixed directly to VipaBoard using a good quality cement-based, flexible tile adhesive that meets classification C2 S1 grade or above. Solvent-based or ready mixed adhesives MUST NOT be used.

Advice from the tile manufacturer must be sought regarding the mechanical securing and fixing of tiles onto walls above 2.4mtr.

12. Plastering

All joints, abutments and fixings, must be bridged with a suitable joint reinforcing mesh such as PCS Joint Reinforcing Tape. Prior to skim coating with plaster, the surface of the VipaBoard must be sealed using a suitable primer, applied in accordance with the manufacturer's instructions.

13. Flexible Synthetic Render Systems

VipaBoard is compatible for highly flexible synthetic render systems that require the application of a reinforcing base layer and a reinforcing mesh, before a final finishing coat is applied. Traditional sand & cement-based render systems are not compatible for use with VipaBoard.

Advice and guidance must be sought from the manufacture regarding the preparation of the VipaBoard before applying external render.

14. Handling and Storage

Store in original packaging in a dry place. Do not store near sources of excessive heat. Prevent prolonged exposure to sunlight.

Avoid dust generated during secondary processing. The preferred cutting method is to score with a knife orhand saw. If power tools are used properly designed dust extraction should be used and/or respiratory and eye protection worn.

Keep work areas clean. Use water sprays to dampen area prior to brushing, or use vacuum cleaning.

15. Exposure/Protection

Occupational exposure limits

Substance	Quartz (respirable Crystalline silica)	Total Inhalable dust
Type of limit	MEL	-
Long term limit (8 hour TWA)	0.3 mg/m3	10 mg/m3
Short term limit (15 minute TWA)	-	MDHS
Sampling methods	MDHS 14/3, 37, 38, 51/2, 76	14/3

Notes:

TWA= Time weighted average exposure

MEL = Maximum exposure limit

OES = Occupational exposure standard

OEL = Occupational exposure limit

MOHS = Methods of the determination of hazardous substances

If this product is used in its intended application and with account taken of the guidance given in this document, it is unlikely that these exposure limits will be exceeded.

See UK Health and Safety Executive Chemical Hazard Alert Notice 35

Respiratory protection: If high dust levels are generated during cutting, a suitable particulate respirator should be worn - either a filtered face piece mask (FFP2 or FFP3) or a non-disposable mask fitted with a P2 or P3 filter.

Eye Protection: when cutting or processing the use of eye protection to BS EN 166 is advised.

Building Regulations

All information is given as guidance and if adhered to will perform as intended. We fully guarantee the quality of our products, however, as we do not have knowledge of site conditions or the capability of the installer, we cannot accept liability for damage which may arise due to a result of incorrect installation. The information and advice provided by PCS does not override nor supersede building regulations. It is the responsibility of the user to seek professional guidance to ensure PCS products are compatible for their intended use and that the products comply with building regulations.

Call: +44 (0) 1942 820131

Emal: info@pcsboard.com