

REAPOR®

This installation guide provides recommendations to maximise the service life of Reapor® applications.

KEY INSTALLATION REQUIREMENTS

Reapor® panels are simple and easy to install using recommended brackets and adhesives. The panels can be cut, drilled and routed using standard woodworking tools, to enable easy installation around obstructions.

All substrates must be clean and free from laitance, curing compounds, dirt, dust, grease, oil and any other contaminants that may inhibit bond.

Reapor should be installed on dry walls and ceilings. Panels are not recommended for installation on retaining walls or below damp courses.

To prevent rainwater migration to the rear of the panels in outdoor applications, the panels should be installed with either flashing/capping installed over the top panels/wall (eg. COLORBOND® steel) or panels can be recessed into the pre-cast concrete walls. The recommended recess is 70 to 80 mm (2.8 to 3.1 in) to cater for the panel, adhesive layer and ~25 mm (1 in) soffit/drip edge above the top acoustic panel.

The bottom panels should be installed with a free drip edge to enable Reapor to drain freely and avoid wicking water up from pavements etc.

Reapor® is quickly and easily installed to horizontal and vertical surfaces.

TUNNEL APPLICATION

To ensure a smoother installation for tunnel applications, we recommend using 625 x 208 mm panels.



applications

- Interior walls and ceilings of offices, retail space, hospitals, schools and aged care facilities
- Walls of railway and motorway tunnels, vent shafts and exits
- Applications requiring high fire ratings
- Airports, stations, and carparks
- Machinery or industrial enclosures
- HVAC, plant rooms, and substations
- Exit ways, smoking areas, stairwells and drive-through areas
- Road barriers, exterior plant fences and sound barriers



Reapor 625 x 208 panels installed in tunnel application

INSTALLATION USING ADHESIVE AND MECHANICAL FIXING

CONCEALED FIXING

1. Approved Pyrotek adhesive (Fixseal MS15, Fix8, Pyrogrip PU) should be used to fix RB brackets (see RB bracket drawings below) and Reapor panels to rigid substrates, such as concrete, pre-fabricated walls, block work, timber, reinforced fibre cement boards or sheet metal.
2. When applying to solid surfaces (cementitious products) a Ramset / Hilti or equivalent gun with 25 mm stainless steel drive pins / nails can be used to fix RB Brackets only.
3. All substrates must be clean and free from laitance, curing compounds, dirt, dust, grease, oil and any other contaminants that may inhibit bond.
4. All substrates should be washed with clean water and thoroughly dry before the application of the adhesive.
5. If in doubt, prepare the substrate using a pressure washer to expose the fine aggregates in the matrix of the concrete as this ensures a clean substrate.
6. Consideration should be given to the transfer of load on horizontal installation - panels must not bridge expansion joints
7. Use a straight edge support to ensure a level plane is set for the RB Base Brackets.
8. Apply 3 grams of adhesive to each RB Base Bracket and secure in place allowing the straight edge to support brackets during curing process. Allow adhesive to cure for 2-3 hours before proceeding with Reapor installation.
Alternatively secure each bracket with 25 mm stainless steel drive pins / nails (cementitious substrates only)
9. Two RB Base Brackets are required for each Reapor panel. Each bracket should be a minimum of 90 mm from each panel edge - allowing for minimum 325 mm centre space between the brackets of each panel.
10. Apply 3 grams of adhesive to upward facing base of fixed bracket before placement of Reapor panel - this will ensure better adhesion.
11. **For 625 x 625 panels** apply adhesive to outer edge of panel (6 x 9 grams per blob) - ensure glue is approx 100 mm from the edges (see image 1).
12. **For 625 x 208 panels** apply adhesive to outer side of panel (2 x 8 grams per blob) - ensure glue is approx 100 mm from the edges (see image 2).
13. Slightly angle tile to substrate with lower back edge resting on RB Base Bracket (see image 3). Secure in place pushing firmly against substrate.
14. Apply 3 grams of adhesive to back and base of RB Spacer bracket, Center bracket or Top bracket and secure to top edge of panels (two brackets for each panel) - ensure adhesive is applied between bracket and panel (see image 4).
15. Secure bracket in place by pressing into Reapor panel and gently hammering in place with small rubber mallet.
16. Each Reapor tile should be pierced with a total of four spikes - two along the lower edge and two along the upper edge.
17. Stains or debris on the surface of Reapor® can be removed by lightly sanding.
18. Refer to Mechanically Fixing drawing for flat surfaces (below) for installation instructions using RB Brackets.

1



Apply adhesive around the edges of the tile only

2



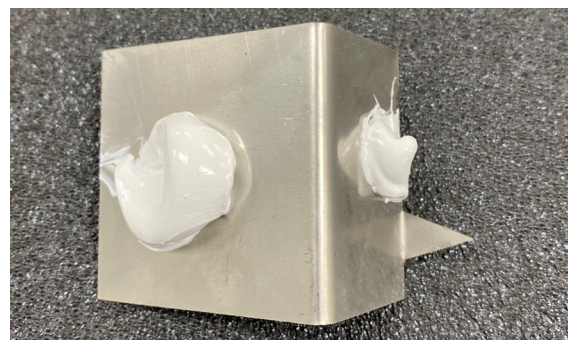
Apply adhesive to the side of the tile only (625 x 208 panels)

3



Apply the tile to the substrate with firm pressure

4

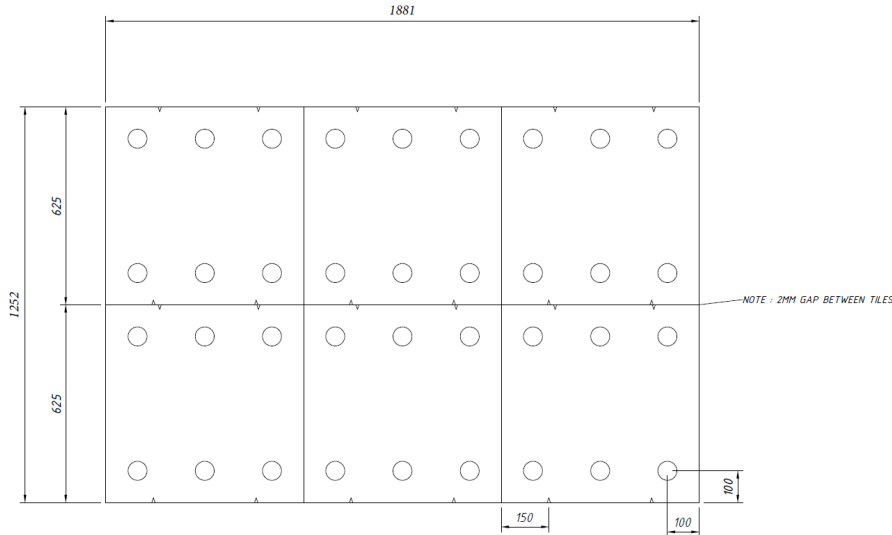


RB Centre Bracket with adhesive applied



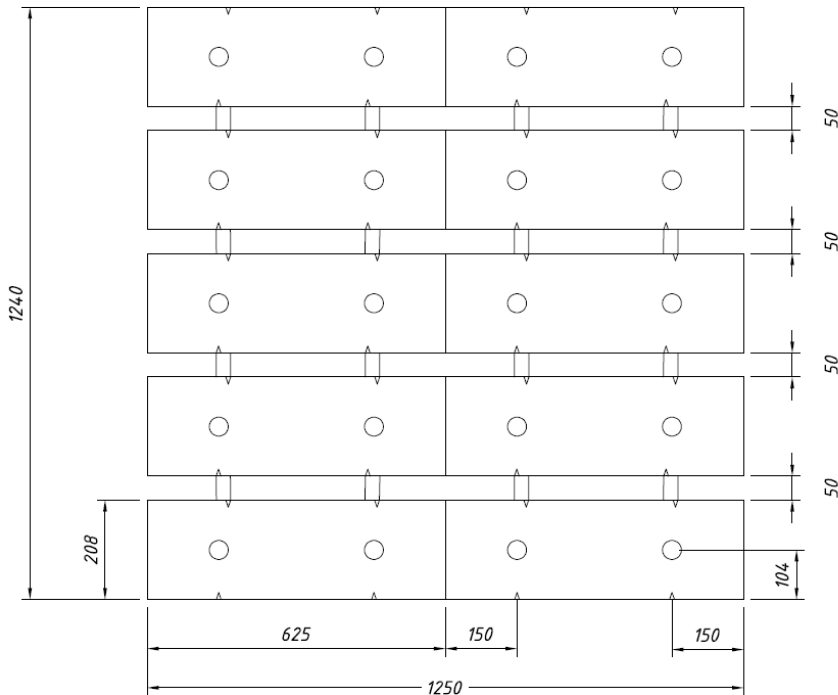
RB BRACKET DRAWINGS (brackets made from 316 stainless steel)

Mechanical fixing using RB Centre Brackets



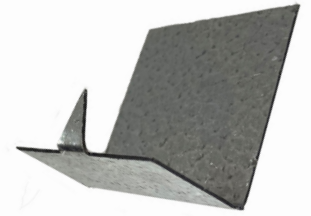
Mechanical fixing using RB Spacer Brackets

(Example of Installation for tunnels and curved surfaces)



KEY	
	ADHESIVE
	RB SPACER BRACKET
	RB BASE BRACKET
	RB TOP BRACKET
	RB CENTRE BRACKET

1



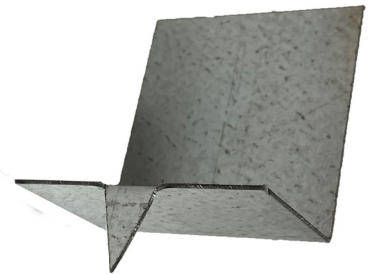
RB Base Bracket

2



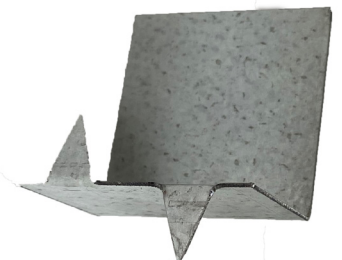
RB Spacer Bracket

3



RB Top Bracket

4



RB Centre Bracket

Reapor Brackets are supplied in stainless steel.
Minimum order quantities apply



INSTALLATION USING ADHESIVE AND MECHANICAL FIXING cont.

UNCONCEALED FIXING

This method is recommended for high wind load and elevated areas

For unconcealed mechanical fixing - stainless steel or plastic pins (UV resistant) can be used.

1. Follow mechanical fixing steps as above for recommended adhesive and Reapor installation guide.
2. Once panel has been applied to substrate, drill through the centre of the panel and approx 30 mm into the substrate using an 8 mm drill bit (see image 1).
3. Insert 8 mm x 80 mm pin into pre-drilled hole (see image 2).
4. Use a hammer to gently tap the pin into the substrate (see image 3)
5. Ensure the pin is flush with Reapor surface (see image 4)
6. It is recommended to paint pin heads after installation to prevent corrosion and UV oxidation caused by the elements.

This installation section is for general advice only.

If you feel your application is unique please contact your Pyrotek representative for more information.

1



Drill into the centre of Reapor

2



Gently insert pin

3



Gently hammer the pin in place

4



Completed overhead installation

GENERAL MAINTENANCE

Weathering

Reapor® is a porous stone-like material with a consistent colour and texture through the tile. Reapor® will weather and age naturally in the elements in a similar way to soft natural stones.

In outdoor applications, Reapor® may show signs of efflorescence, a temporary condition which can be removed by brushing or rinsing with a hose. In most cases, over time rainwater steadily removes the deposit leaving the original colour of the panel unharmed.

Ensure adequate drainage is present so that efflorescence deposits do not occur as a result of pooled runoff water.

Efflorescence does not affect the quality, acoustic performance or functionality of Reapor®.

Care, Repair and Maintenance

- Replace any cracked or broken tiles.
- Clean any debris to maintain the free drip edge and ensure the damp course is not breached.
- Regularly inspect flashing to ensure it remains functional.
- Clean off any efflorescence by first dry brushing off build up of deposits with brush or tools. The surface can also be sanded to remove surface stains or other marks (you can use a piece of Reapor® as a sanding block - ie Reapor on Reapor).
- If further staining is visible, consider hosing down, or using mild soapy water to rinse. Efflorescence remover is recommended only for very stubborn areas.

DETAILING

Cutting, Routing and Rebating

Reapor® tiles can be easily processed, routed, rebated or hand sawn to any shape such as creating grooves and channels.

- A circular saw fitted with a continuous rim diamond tipped masonry blade can be used for cutting in large projects.
- Consideration should always be made for proper dust control and ensure suitable PPE is equipped before work.

(Please refer to the Reapor® SDS for further information)

Treatment of Perforations

Adequate flashing should be incorporated to discourage and deflect water away when Reapor® tiles are drilled for cabling and pipe access



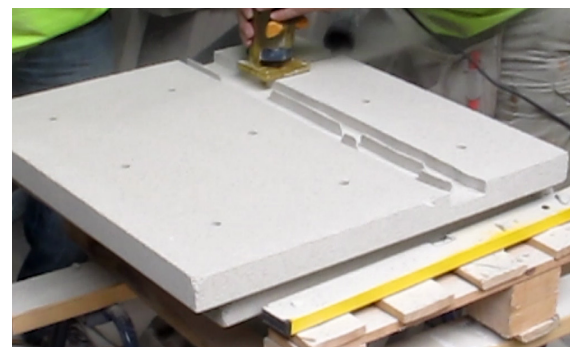
Reapor resists weather, water and UV exposure



Tunnel application - Reapor installed on the wall



Regularly inspect flashing for functionality



Reapor can be routed to allow cable access

Please contact Pyrotek® for further information or detailed advice on your specific application.