

**STONEWALL  
PLATINUM**

**DESIGN AND INSTALLATION GUIDE**

**01**

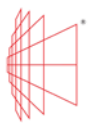
2022 + 2023  
EDITION



**ASPECT VIVID**

**NON-COMBUSTIBLE  
SOFFIT TILE SYSTEM**

PRE-FINISHED • NATURAL VOLCANIC ROCK • NATURAL ACOUSTIC & THERMAL PROPERTIES



**STONEWALL PLATINUM®**

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## STONEWALL PLATINUM®

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Stonewall Platinum® panels are engineered and manufactured using compressed natural volcanic rock, which are naturally non-combustible with high thermal and acoustic insulation properties.

The Stonewall Platinum panels have been designed for use in various building applications:

- FAÇADE® is a rendered external wall cladding system
- TERRAWOOL® is a thermal and acoustic insulation batt
- **ASPECT VIVID® is a soffit tile system**
- ASPECT VIVID GRID® is a suspended ceiling tile system
- COMPLETE® is an inter-tenancy wall system.

Stonewall Platinum panel systems can be used in all classes of buildings where they satisfy the requirements of the National Construction Code (NCC), Building Code of Australia (BCA) Volumes 1 and 2.

Stonewall Platinum panels are manufactured in accordance with ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, ISO 50001 Energy Management Systems and OHSAS 18001 Occupational Health and Safety Management Systems, as certified by Bureau Veritas.

### Disclaimer

This design and installation guide is to be used by suitably qualified persons i.e. Building Surveyors, Building Designers, Architects, Builders and other Building Professionals. This document is a guide and as such, professional advice must be obtained to ensure that this product is suitable to the proposed application.

All efforts have been made to ensure that the information presented in this guide is to the best of our knowledge at the time of publication.

Not limited to the following items, Stonewall Platinum® accepts no responsibility for:

- Any errors and omissions within this guide
- Issues arising as a result of this guide not being followed in its entirety
- Any loss or damage caused by any person acting or refraining from action as a result of this information.

Always seek advice from appropriately qualified professionals such as designers, engineers or surveyor before using this product.

# INTRODUCTION

The ASPECT VIVID® tile system has been designed for protected external areas such as ceilings and soffits and delivers a world-class insulation with acoustic, thermal and non-combustible properties.

ASPECT VIVID® is an architecturally designed pre-finished tile, which is super lightweight and easily installed using adhesive and concealed mechanical fixings to a concrete substrate/top hat sections or mechanically fixed.

The white pre-finished coating on the face of the ASPECT VIVID® tile has been designed to diffuse and optimise available light without resultant glare.

Figure 1: The ASPECT VIVID® tile

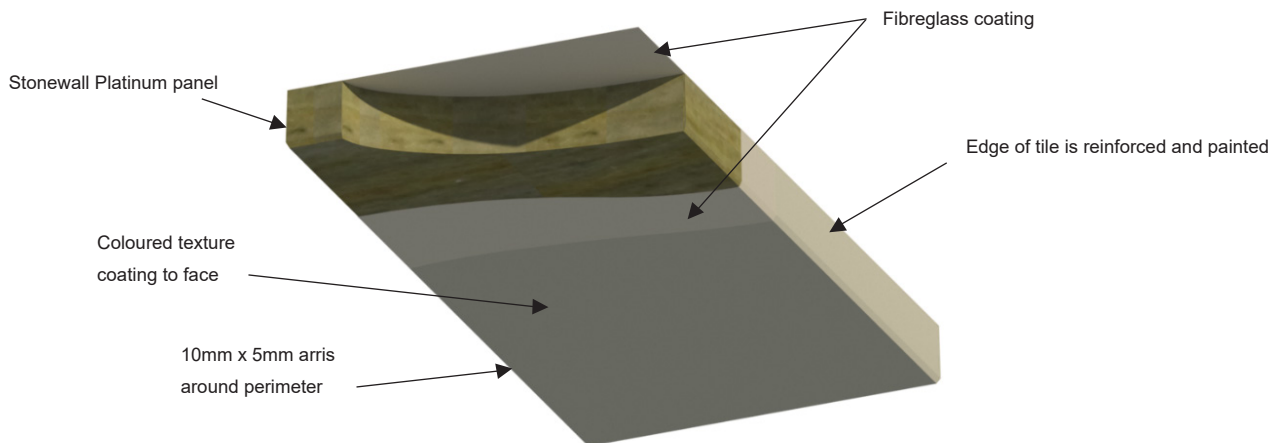


Figure 2: White ASPECT VIVID® tile used on Shellharbour Council Offices NSW Project





# PRODUCT

ASPECT VIVID® is available in a tile size of 1200mm x 600mm with thicknesses of 60mm, 75mm and 100mm.

Figure 3: ASPECT VIVID® tiles in production



## Tile Properties

Aged Thermal Resistance @ 23°C (60mm tile thickness)	1.8m <sup>2</sup> K/W
Declared Thermal Conductivity	0.0333W/m.K at 23°C
Specific Heat Capacity	0.84kJ/kg.K
Aged Performance 8-10 Years	No Change
Noise Reduction Coefficient (NRC)	1.00 @ 60mm
Weight Sound Absorption Coefficient	α <sub>w</sub> 0.95
Diffuse Light Resistance*	>55%
Calorific Value	<1.5MJ/kg
Melt Temperature	>1000°C
Combustibility	Non-combustible
Heat Release Rate & SMOGRA	Group 1
Fuel Load	Product does not contribute to fuel load
Anti-Ignition Temperature	Nil
Flashpoint Ignition Temperature	Nil
Smoke Toxicity	Low
Water Vapour Resistance	5MN.s/g
Water Repellence	1.00
CFC %	Nil
HCFC %	Nil

\* Only applies to the white tile

## Tile Composition

Mineral Rockwool Fibre (Amorphous, non-crystalline, bio soluble)	95%
Heat-cured resin (Fibre bonding agent)	5%
Silica/Asbestos content	Nil



Green Building Council of Australia (Test Method: ASTM D5116-17)

Green Star Design & As Built v1.1 13.1.2B & 13.2  
Green Star Interiors V1.1 - 12.1.2B

ASPECT VIVID® Soffit Tile

Total Volatile Organic Compound Emission Rate limit <0.5 mg/m<sup>2</sup>/hr

Total Volatile Organic Compound Emission Rate: 0.019 mg/m<sup>2</sup>/hr

Formaldehyde Emission Rate limit <0.1 mg/m<sup>2</sup>/hr

Formaldehyde Emission Rate: 0.031 mg/m<sup>2</sup>/hr

# TESTING

ASPECT VIVID® tiles have been rigorously tested against the following standards to ensure compliance with the relevant sections of the Building Codes of Australia.

Compliance Testing	
Fire	AS5637.1 - Group 1
	AS3837
	AS1530.1 (Core)
	AS1530.3 (Core)
Acoustic	ASTM C423-09a
	AS ISO 11654-2002
	AS ISO 354-2006
Thermal	ASTM C518-2010
Emissions	ASTM D5116-17
Absbestos	AS4964-2004

# SYSTEM BENEFITS

## ACOUSTIC

ASPECT VIVID® tiles satisfy the requirements of the NCC BCA Volume 1 Section F (Health and amenity) Part F5 (Sound transmission and insulation) relative to the specific building design and application of the tiles as outlined in the guide.

ASPECT VIVID® tiles have world-class values for acoustic insulation performance. These include sound absorption and reduction sound reverberation time improved acoustic spatial amenity values.

Acoustic Properties								
Thickness	Density	Frequency (Hz)						
mm	kg/m <sup>3</sup>	125	250	500	1000	2000	4000	NRC
60	160	0.38	0.80	1.03	1.04	0.96	0.93	1.00
75	160	0.52	0.80	1.01	1.04	0.96	0.93	1.50
100	160	0.58	0.77	0.99	1.04	0.96	0.93	2.00

Sound Absorption results tested in accordance with AS/ISO 354-2006 and NRC rated in accordance with ASTM C423-90a. The sound absorption coefficient ( $\alpha_w$ ) as per AS ISO 11654-2002 is:  $\alpha_w = 0.95$

## FIRE

ASPECT VIVID® tiles satisfy the requirements of the NCC BCA Volume 1 Section C (Fire resistance) C1.9 (Non-combustible building elements) relative to the specific building design and application of the tiles as outlined in the guide.

ASPECT VIVID® tiles have world-class fire properties with respect to combustibility. While ASPECT VIVID® tiles will NOT burn, it is critical to have non-combustible linings that will not contribute to the spread of flame.

ASPECT VIVID® tiles have been tested and approved for use as a Non-combustible, Group 1 material suitable for use as a soffit tile.

The Fire Hazard Indices as per AS1530.3 achieved the following results:

- Ignitability: 0
- Spread of Flame: 0
- Heat Evolved: 0
- Smoke developed: 1

ASPECT VIVID® tiles' core has an outstanding low fire load of >1.5MJ/kg with melting point over 1000oC and will not auto ignite. The tiles will contain the spread of flame and release no toxic smoke.

## THERMAL

ASPECT VIVID® tiles satisfy the requirements of the NCC BCA Volume 1 Section J (Energy efficiency) Part J1 (Building fabric) relative to the specific building design and application of the tiles as outlined in the guide.

ASPECT VIVID® tiles have world-class values for thermal insulation performance achieving an R-value of 1.8 for a 60mm thick tile when tested.

ASPECT VIVID® tiles do not react to temperature change; they will not expand, contract or distort.

Thermal Properties				
Thickness	Weight	R-Value	R-Value	R-Value
mm	kg	Enclosed Non-vented	Enclosed Vented	Open Vented
60	10.82	2.785	2.067	2.017
75	13.26	3.215	2.497	2.447
100	17.62	3.935	3.217	3.167

## MOISTURE

ASPECT VIVID® tiles satisfy the requirements of the NCC BCA Volume 1 Section F (Health and amenity) Part F1 (Damp and weatherproofing) relative to the specific building design and application of the tiles as outlined in the guide.

ASPECT VIVID® tiles are vapour permeable and do not absorb water. The tiles have a very high-water repellence and are dimensionally stable at humidity levels up to 100%.



## SYSTEM LIMITATIONS

Although ASPECT VIVID® tiles are versatile, the following limitations apply:

- Tiles are not to be installed in where they can be directly exposed to prevailing winds.
- Tiles are not to be installed in where they can be directly exposed to sunlight.
- Tiles are not to be installed in where they can be directly exposed to rain.
- Any brackets or fixings must be installed through to the substrate as per the fixing manufacturers specifications.

## COLOURS

ASPECT VIVID® tiles are available in either white or black. Additional colours are available upon request.

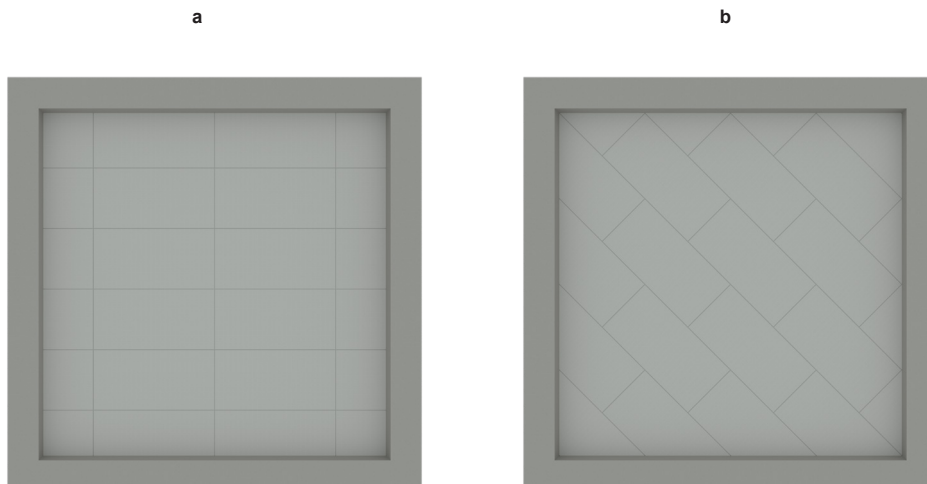
The Diffuse Light Resistance of 55% is only applicable to the ASPECT VIVID® white.

## LAYOUTS

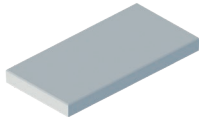
ASPECT VIVID® tiles can be installed in a variety of patterns including (Figure 4):

- Straight or Stack Bond
- Stretcher, Off-Set or Brick Bond
- Parallel/square or Diagonal (45 degrees)

Figure 4: Layouts



# SYSTEM COMPONENTS



## ASPECT VIVID® Tile

The ASPECT VIVID® tile is 1200mm long and 600mm wide. The thickness of the tile is available in 60mm, 75mm or 100mm. The edge of the tile has a 10mm x 5mm arris around the perimeter of each tile.

## ASPECT VIVID® Insulation anchor ICCONS TIDS, TIDR

### Material

- galvanised steel– TID S
- A2 stainless steel – TID R
- cap: polyethylene

### Base material

- approved for concrete strength C 20/25 to C 50/60
- cracked and non-cracked concrete

### Product features

- approved for multiple fastening of insulation panels
- high load-bearing capacity in cracked and non-cracked concrete
- small drill holes
- quick and safe installation



**ICCONS™**

### Pin Options

#### GALVANISED COATING

TIDSMETAL08110 – 8x110 – For the 60mm and 75mm Aspect Vivid Panel

TIDSMETAL08140 – 8x140 – For the 100mm Aspect Vivid Panel

#### 316 STAINLESS STEEL COATING

TIDSMETAL08110SS – 8x110 - For the 60mm and 75mm Aspect Vivid Panel

TIDSMETAL08140SS – 8x140 - For the 100mm Aspect Vivid Panel

## Capping/Flashing/Trims/Edging

Capping/flashing/trims and edgings may be required to finish where ASPECT VIVID® tiles abut adjacent surfaces. These items may be proprietary products off the shelf or custom folded/made and are project specific. Stonewall Platinum® does not provide or manufacture any of these items. In cases where the edge of the ASPECT VIVID® tiles may be exposed to the elements, appropriate flashing, over flashing and drip edge to ensure weatherproofing is achieved.

Contact Stonewall Platinum for further technical specifications.

## TOOLS & EQUIPMENT

- Insulation knife with wave pattern blade or mineral wool knife
- Circular saw or table saw with fine cutting blade (a ripping blade must not be used)
- Hole saw (Multi-purpose or Bi-metal) for penetrations

Note: When cutting or drilling, ensure that the cutting/drilling commences on the face of the tile. The back of the tile must also be supported to ensure that the tile does not delaminate.

- Straight edge
- Rafter/framing square or wallboard/plasterers T square
- ICCONS hammer fixing bit
- 8mm diameter drill bit 210mm length with 150mm working length

Figure 5: Tools of the trade

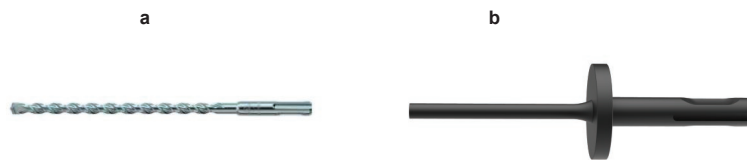


Figure 6: White ASPECT VIVID® tile displayed in Stonewall Platinum Showroom



ASPECT VIVID® tiles are classified as non-hazardous. For more information, please refer to the Safety Data Sheet (SDS).

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

When handling and working with ASPECT VIVID® tiles, the following PPE must be used:



### Eye protection

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Wear safety goggles to protect the eyes from fibres.

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### Hand protection

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Use cut resistance gloves to protect hands when cutting tiles. Gloves will also protect the skin as the fibres could result in skin irritation.

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### Skin protection

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Cover exposed skin as the fibres could result in skin irritation.

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### Respiratory protection

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Wear a face mask when cutting/drilling tiles as fibres, dust and fumes could occur.

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## CUTTING

Cutting of ASPECT VIVID® tiles is carried out using either a knife (designed for cutting mineral wool) or power tools. Hand tools generate the least amount of dust and fibres. If power tools are used directly on the product, appropriate dust collection systems are recommended.

Note: The face of the ASPECT VIVID® tile can mark easily. Ensure that measures are taken to protect the face of the tile.

## HOUSEKEEPING

Personnel directly involved in clean-up of loose material should wear personal protective equipment. Work areas should be cleaned regularly, vacuuming or wet sweeping is recommended.

Make sure to place left over rock mineral wool into a bag, so dust does not become scattered. For disposal of industrial waste, please use a supplier which is authorised to handle this type of waste.

## HANDLING

ASPECT VIVID® tiles are safe to use. Once installed, the product does not release dust or fibres. Handling, installing or removing the product may result in some dust and airborne fibre. Make sure to minimise eye or skin contact with and inhalation of the dust and fibre during handling, installation and removal. Observe good personal hygiene, including washing hands before eating and removing personal protective equipment before entering eating areas.

## VENTILATION

During most applications and installation, no special ventilation will be required. However, if installing in dusty or poorly ventilated areas or during the first heat-up cycle in high temperature applications, local exhaust ventilation should be considered. Work practices should aim to minimise the release of, and exposure to, fibres and/or dust.



## DELIVERY & STORAGE

ASPECT VIVID® tiles should be stored inside or covered to protect them from ingress of rainwater. Make sure the product does not become wet. If the product does become wet, replace with new insulation.

Storage arrangements should ensure stability of stacked products. Use on a first in first out basis (FIFO) is recommended. ASPECT VIVID® tiles will be delivered in boxes with each tile individually protected. The dimensions of the tiles are listed below:

Thickness (mm)	Quantity (each)	Weight (kg net)
60	5	54.1
75	4	53.0
100	3	52.9



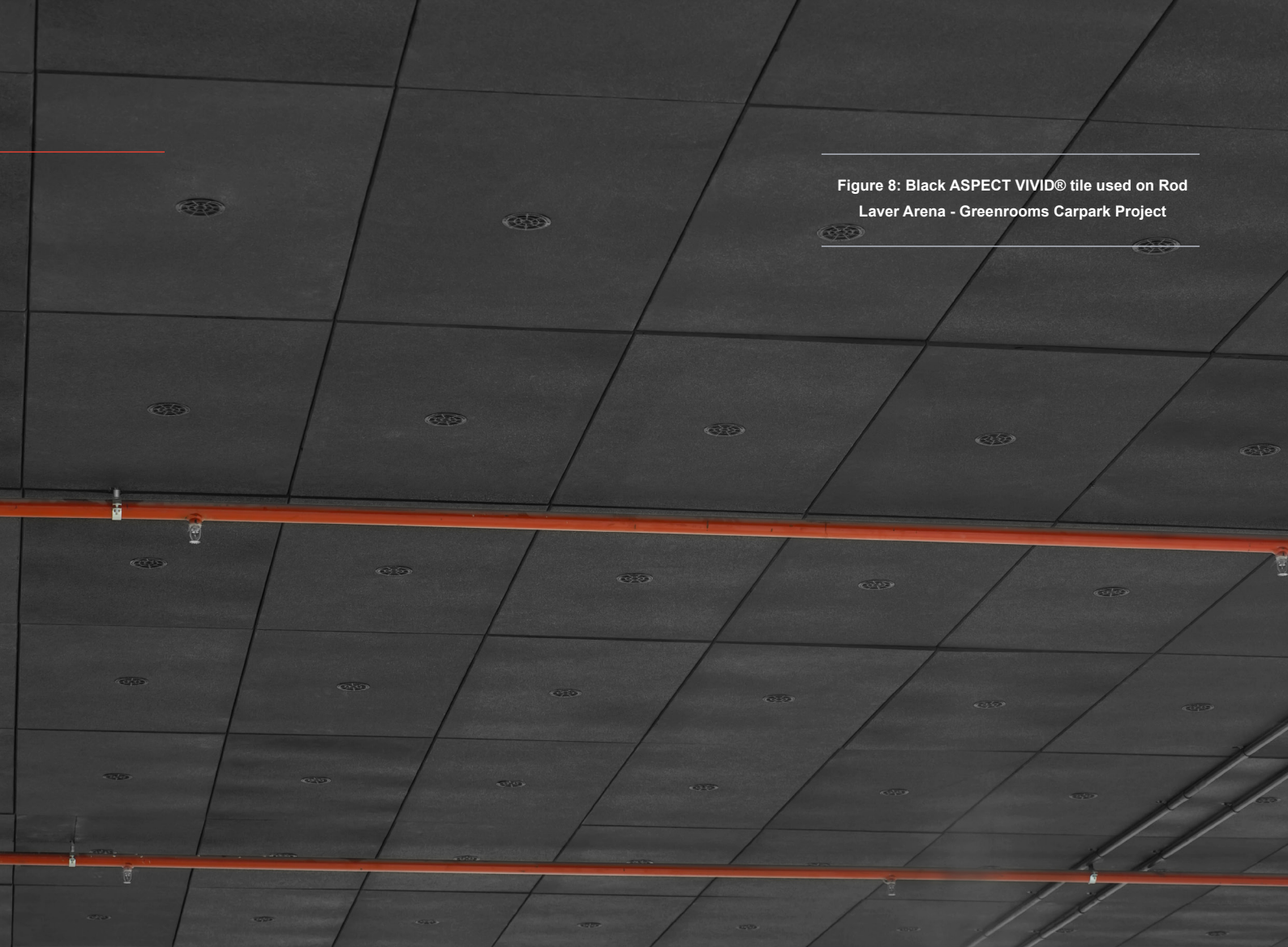
Figure 7: White ASPECT VIVID® tile in Stonewall Platinum Showroom, Victoria



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Figure 8: Black ASPECT VIVID® tile used on Rod Laver Arena - Greenrooms Carpark Project

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Figure 9: White ASPECT VIVID® tile

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ASPECT VIVID® tiles are installed using both adhesive and mechanical fixings to a concrete substrate.

## SET OUT AND PREPARATION FOR INSTALLATION

The concrete substrate finish required for the installation ASPECT VIVID® tiles must be a minimum of class 3. Once the desired layout has been selected, ensure that the starting point is as such that minimal cuts are required and, where possible, the minimum width of a tile is approximately half the width.

Plan it out, consider the location of services, bulkhead, beams, construction joints, for instances. This will ensure that the finish will be aesthetically pleasing and reduce the waste percentage of the tiles.

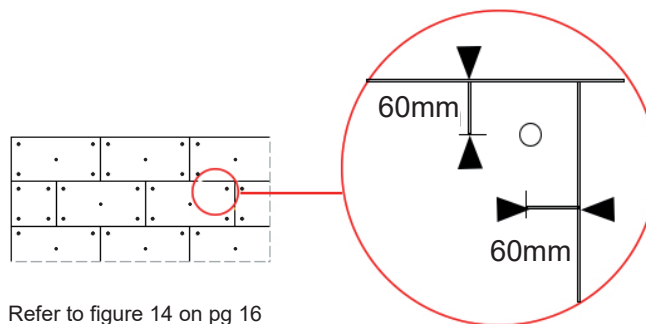
The tiles are easily marked and damaged. To reduce the likelihood of marking it is recommended that gloves be worn when handling the tiles during the installation process.

Note: White cotton gloves from the safety store work well

Prepare the tile by first checking it for any defects or damage.

The tiles require a fixing in each corner, located a minimum of 60mm from each edge and one in the centre. Pre-drill the holes through the tile using a standard 8mm diameter drill bit and remove any debris (Figure 10).

Figure 10: Fixing locations



Also ensure that all surfaces are be dry, clean and free from oils, dust, debris, plasticisers and other foreign material.

Note: If and when using fire rated adhesive:

Where applying over an existing coating, ensure the coatings integrity is sound and that the adhesive is suitable to provide a sufficient bond to the coating when the panel is cut to be sealed around services.

Note: Always follow the adhesive manufacturer's instructions.

## ASPECT VIVID® Insulation anchor ICCONS TIDS, TIDR

The ASPECT VIVID Insulation anchor ICCONS TIDS, TIDR fixing is suitable for standard concrete with a density of 20-50 MPa. Use a drill bit with a diameter of 8 mm.

Note: Test a fixing in the concrete to ensure that the fixing will stay in place as softer and/or older concrete types may require a drill bit with a smaller diameter.

The tiles require a fixing in each corner, located a minimum of 60mm from each edge and 1 fixing in the centre.

Panel Thickness (mm)	TID / TID-K	Drill size (mm)	Total Drill hole Depth (mm)	Anchor Embedment into concrete (mm)
60	8 x 110	8	115	50
75	8 x 140	8	145	65
100	8 x 140	8	145	40

Place the tile against the substrate ensuring that it is fully supported by hand(s) to ensure that the adhesive has even contact.

**Note: Do not push up on the tiles too hard as the surface is easily damaged**

1. Set drill hole
2. Clean out drill hole from the base
3. Knock insulation fastener through the Aspect Vivid panel with a hammer
4. Anchor disc must fully contact the Aspect Vivid panel

Place a structured cap (included in the delivery) over the anchor.

Figure 13: Anchor fixing

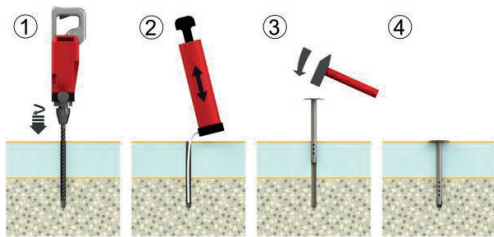
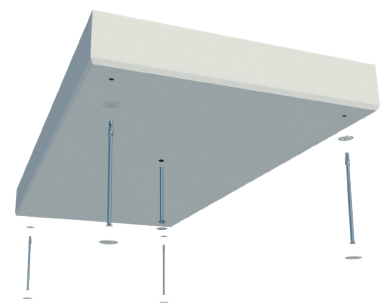


Figure 14: Standard fixing method - 5 per panel



## TOLERANCE

All ASPECT VIVID® tiles are manufactured to the highest possible standards, however, there may be small gaps between the tiles once installed. These gaps can be filled using a white gap filler finished off using a small tool and wiping any excess off with a clean damp cloth.

## FLASHING / CAPPING / WEATHERPROOFING / FINISHING / TRIMS

Flashing /capping/trims and edgings may be required to finish where ASPECT VIVID® tiles abut adjacent surfaces. These items may be proprietary products off the shelf or custom folded/made and are project specific. Stonewall Platinum® does not provide or manufacture any of these items. In cases where the edge of the ASPECT VIVID® tiles may be exposed to the elements, consider appropriate flashing, over flashing and drip edge to ensure weatherproofing.

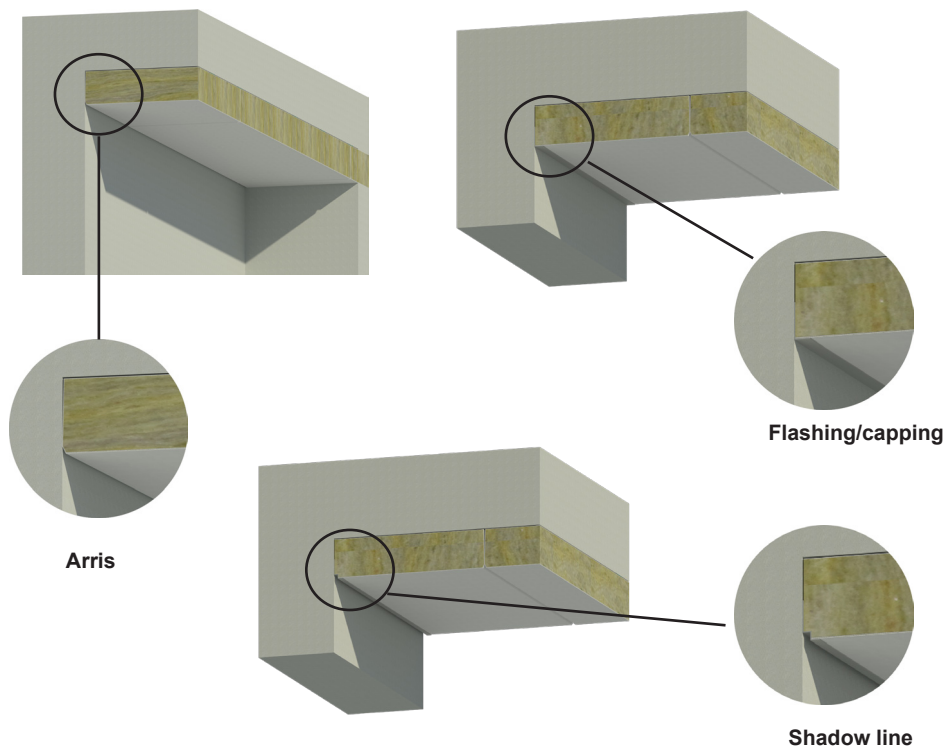
The edges of the ASPECT VIVID® tiles are painted in the same colour as the face of the tile; however, the sides do not have the same texture finish.

ASPECT VIVID® Tiles can be finished against an adjacent surface such as a wall or bulkhead as follows:

- Original arris edge
- Square/butt
- Shadow line
- Flashing/capping.

Where there is not an adjacent surface, the tile must be flashed/capped ensuring that all precautions are taken for weatherproofing (Figure 15).

Figure 15: Finishing the ASPECT VIVID® tiles to adjacent surfaces





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Figure 16: Rod Laver Arena Project,  
Melbourne

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## **ARTICULATION/MOVEMENT/CONSTRUCTION JOINTS**

There are no requirements to allow for articulation/movement/construction joints for ASPECT VIVID® tiles themselves; however, these joints in the substrate must be taken into consideration.

Advice on installing top hat sections and/or ASPECT VIVID® tiles over Articulation/Movement/Construction Joints must be sought from a structural engineer.

## **BEAMS, CHANGES IN LEVELS AND BULKHEADS**

Given the structure of the substrate will vary with respect to design considerations for loads there will be beams and change in levels. Apart from the structure, services may also require bulkheads to be constructed around them.

For beams, change in levels and bulkheads, the tile installed to the main area is to be installed against the beam. The tile should then wrap the beam or bulkhead to ensure that there are no exposed edges of the tile (Figure 17).

Adhesive is to be applied to all faces to be bonded. The adhesive is suitable for use on the raw Stonewall panel element of the ASPECT VIVID® tiles.

Note: Propping and bracing may be required to hold the tiles into position while the adhesive is curing.

Creating bulkheads around or boxing in services may also be required. In these instances, the tile installed to the main area is to be installed to within the desired distance to the services. Then depending on the depth required to conceal the services, house out a section from the back of the tile and glue to the soffit tile (Figure 18).

Note: The minimum thickness of tile that must remain after housing out is 20mm for a maximum width of 150mm.

Where the depth is greater than the thickness of a tile, cut strips (as blocking pieces) to the required height to get clearance. Glue the strips to the ASPECT VIVID® tile before gluing a tile to the blocking pieces.

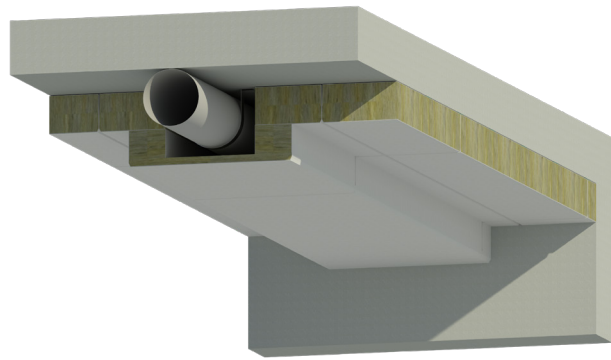
Adhesive is to be applied to all faces to be bonded. The adhesive is suitable for use on the raw Stonewall Platinum® panel element of the ASPECT VIVID® tiles.

Note: Propping and bracing may be required to hold the tiles into position while the adhesive is curing.

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**Figure 18: Bulkhead / Box in Services**

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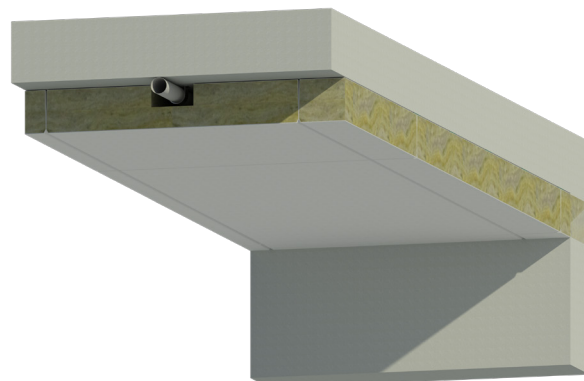
Where services are small, the back of the tile can be house out to accommodate. The use of top hat sections is recommended in areas with a number of services (Figure 19).

Note: The minimum thickness of tile that must remain after housing out is 20mm for a maximum width of 150mm.

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**Figure 19: Small Services**

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## PENETRATIONS

Penetration in an ASPECT VIVID® tile may be required for a variety of reasons, which may include services such as conduits, plumbing and even fixings (Figure 20).

Service penetrations can be made using either an insulation/mineral wool knife or even a hole saw.

Note: When cutting or drilling, ensure that the cutting/drilling commences on the face of the tile. The back of the tile must also be supported to ensure that the tile does not delaminate.

When using a hole saw to cut holes for penetrations, ensure that the speed of the drill is slow and use minimal pressure letting the hole saw do the work. Depending on the depth of the tile and length of the hole saw, the hole may need to be cut/drilled in sections to allow the hole saw to be cleaned out.

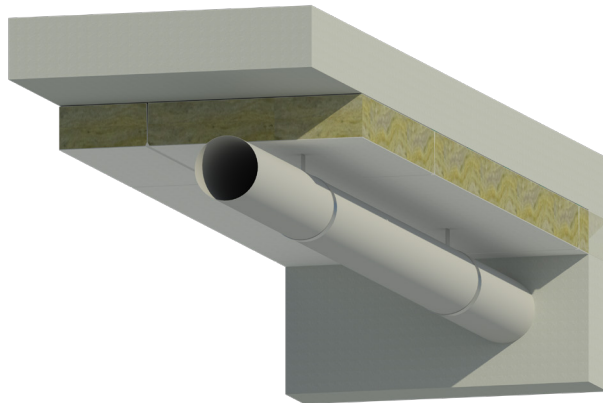
Penetrations may also include fixings for other services. All fixings must be installed through to the substrate, ASPECT VIVID® tiles must not be the sole support for fixings.

Where holes cut in ASPECT VIVID® tiles are larger than the penetration the gap may be either caulked or flashed.

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Figure 20: Heading pending

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Figure 21: Non-combustible soffit tile made of natural volcanic rock

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## MAINTENANCE

### REPAIRS

Scratches, gouges and other surface damage that leave the raw Stonewall Platinum® panel element exposed will not degrade ASPECT VIVID® tile performance.

The Stonewall Platinum® panel element will not be affected by leakage from pipework and/or building defects or exposure to high humidity; however, the surface may suffer discolouration from water borne contaminants and the like if the building fault is not addressed promptly. The Stonewall Platinum® panel element is inorganic and cannot support life, excessive moisture and exposure to airborne nutrient contamination is likely to result in surface mould growth and discolouration.

Note: It is important to repair pipe or building leaks and avoid excess wetting.

#### **Painting:**

The tile colour may be colour matched and painted. It is recommended that the entire face of the tile be painted to prevent colour variation.

#### **Patching:**

Patching of the tile face is not recommended as the texture will not match.

#### **Replacing:**

If a tile is damaged, an individual tile can be easily removed and replaced, ensuring that both performance and visual amenity can be maintained over time.

### CLEANING

Occasional cleaning of areas with a soft brush or the like will remove cobwebs and other superficial debris. Wet cleaning with well wrung out damp cloth can be used to remove light surface marking.

Note: High pressure water cleaning can damage the surface and must not be used.

## WARRANTY

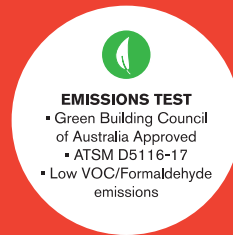
The Stonewall Platinum® warranty covers its range of products to be free of defects directly attributed to manufacturing faults and to maintain the nominated performances for a period of 7 years. The warranty is valid when conditions for storage, installation and use as recommended in this design and installation guide are complied with.

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# NOTES

# NOTES

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ACOUSTIC



FIRE



MOISTURE PROOF



ANTI-BACTERIAL



COLOUR & LIGHT REFLECTANCE



INSULATION THERMAL COMFORT



ECOLOGY & ENVIRONMENTAL FRIENDLY

STONEWALL PLATINUM®

**Phone** +61 3 9111 8400  
**Email** [info@stonewallplatinum.com](mailto:info@stonewallplatinum.com)  
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