

# NON-COMBUSTIBLE VITREOUS ENAMEL CASSETTE SYSTEM

Valcan Vitranamel®





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### **OUR VISION**

To be the trusted advisor for the external façade industry through our outstanding support and customer service



### **OUR MISSION**

To sustainably provide quality and long-lasting façade systems with fast lead times

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### OUR VALUES

We are hungry, humble, smart, fast, and trustworthy, & our teamwork helps us to deliver exceptional results that exceed expectations

All information (including any drawings, designs or specified materials) set out in this document is provided for guidance only. We do not accept any liability for it and do not warrant or take responsibility for its accuracy.

The document does not take into account the requirements of your project and should not be relied upon. All information contained in it should be verified and approved by a qualified professional to ensure it meets your requirements and the requirements of your project.

The information and prices contained here are believed to be correct at time of publishing. Valcan reserves the right to revise the contents of this document at any time.

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### VALCAN, YOUR TRUSTED PARTNER IN A1/A2 NON-COMBUSTIBLE **CLADDING SOLUTIONS**



#### WHO WE ARE

Valcan is the trading name of Fairview Europe Ltd and we are part of the Fairview global family. Valcan is a developer and manufacturer of rainscreen cladding systems working with clients, insurers, architects and contractors.

We deliver fully tested non combustible A1 /A2 (A2-s1,d0) certified solutions, paired with reliable and technically assured customer service.

With over 20 years of experience in the façade industry through Fairview's global network, we have established a leading position in the market and are now the preferred company by Architects, Contractors and Fabricators.

#### HISTORY

Valcan initiated its distribution of Vitrabond A2 Aluminium Composite material to the construction industry during the early 2000s. This effort was made possible through the unwavering support of Fairview Architectural, Australia - a partnership that remains robust to this day.

With a solid background in the façade industry spanning over two decades, Fairview Architectural initially catered to the rainscreen market with their flagship product, Vitrabond.

Presently, we offer a diverse range of 10 products, along with a range of complete cladding systems. Our commitment to providing exceptional customer service drives us to continuously improve our processes and offerings.

We take pride in being a supportive partner to our customers, guiding them through each project phase and helping them achieve their objectives.



#### WHY CHOOSE VALCAN?

At Valcan, we do not design, fabricate, or install products ourselves. Instead, we have a network of trusted partners we collaborate with to ensure your project is completed to the highest standards of quality and safety. These partners, selected for

their expertise, knowledge, and ability to deliver outstanding results, include designers, fabricators, and distributors sharing our commitment to quality, safety, and innovation.

We also have a network of installer partners, carefully chosen for their professionalism, reliability, and commitment to safety. Fully trained and accredited to install our products, they ensure your project is completed to the highest standards.

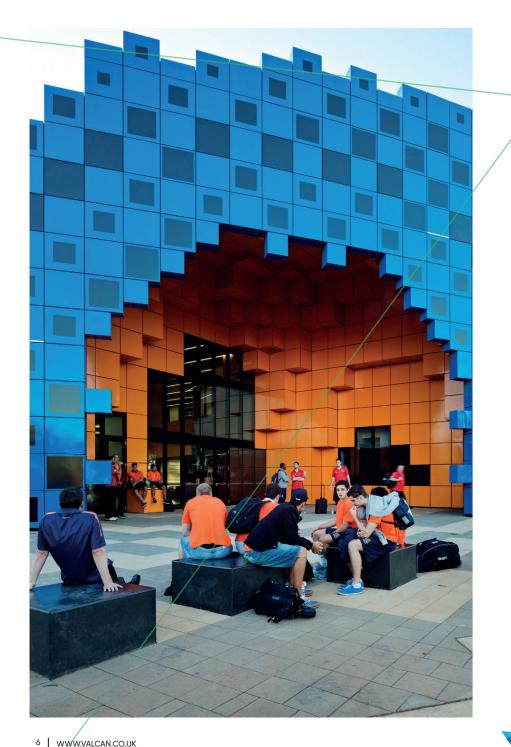
#### **OUR STRENGTHS**

Valcan is renowned for its exceptional dedication to providing top-tier, secure, and innovative solutions in the facade industry. Our principal products and systems boast noncombustibility, earning A1 /A2 fire ratings and setting the gold standard for rainscreen systems.

This commitment to quality is propelled by rigorous research and development, ensuring that every solution we deliver is expertly tailored to cater to each project's unique needs and demands. Whether you're undertaking a new build and recladding projects, Valcan guarantees optimal performance, safety, and integrity in every product.







### WHAT IS VITRANAMEL®?

Vitranamel is a prefabricated steel cassette panel system featuring a vitreous enamel finish which is applied using a special static powder enamelling process including baking at 800 degrees. This produces a virtually indestructible finish and is one of the most durable exterior coatings in the world; meaning that it is highly resistant to graffiti, abrasion and impact damage.

Vitranamel comprises a steel skin that is prefabricated into a cassette panel and can be manufactured in a wide range of shapes (including curves in certain applications) and finished in a wide range of colours. This enables extremely flexible design possibilities along with the added benefit of low maintenance and excellent durability.

#### BENEFITS OF VITRANAMEL®

- **Non-combustible** Vitranamel stands strong, withstanding temperatures over 700°C.
- Waterproof Ensures resilience against the elements.
- Versatile Customisable shapes, dimensions, perforations, and curves for a tailored design solution.
- High Durability Vitranamel panels are extremely durable. The vitreous enamel coating has excellent scratch, graffiti and impact resistance making it ideal for areas of heavy traffic or extreme wear.
- Versatile Vitranamel can be custom designed into a wide range of shapes and dimensions as well as able to be perforated or curved in some applications making it a versatile design choice.
- Hygienic Vitranamel has a completely non-porous surface that does not absorb any bacteria. The non-stick surface allows intense cleaning with hospital grade cleaning agents.
- Paint System Vitranamel uses an enamel coating which exhibits high durability, providing the optimum resistance to weather and industrial automation.
- **UV Stable** Vitranamel has a far superior colour consistency over time when compared to typical cladding panels. The colour and gloss level of these panels are unaffected by sunlight.



Thanks to our unlimited custom colour matching options, Vitranamel provides unrivalled design opportunities and are highly suited to corporate office or business location branding.

### VITRANAMEL® PANEL SPECIFICATIONS

Providing unrivalled performance in the areas of impact resistance, non-combustibility, colour fastness and durability, vitreous enamelled panels are regularly selected for signage and high traffic cladding applications including train stations, shopping malls and tunnels.

GTH	Up to 3000mm
тн	Up to 1400mm
ISITY	7750 - 8050 kg/m3
IVERY	Nationwide & European Delivery: We deliver panels across the UK and Europe. Rest assured, all panels are securely wrapped and placed on high-quality pallets. They are transported via our dedicated fleet to guarantee their safe arrival at your location.
	Customer-Arranged Pickup: If you'd rather arrange transportation. Just give us a heads-up at least 48 hours prior to collection to ensure your order is ready.

As a company whose prerequisite is your satisfaction, we offer our cut-to-size and special colour services to make installation of your metal cladding systems quick and easy for all parties involved in the project.





### VITRANAMEL® QUALITY

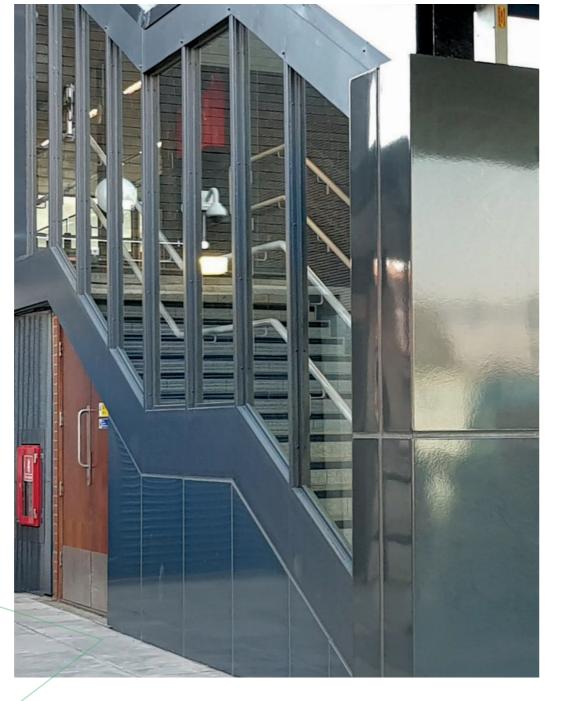
#### MANUFACTURING QUALITY

A dedication to the total fulfilment of our client's and customer's expectations is reflected by a complete quality control system, beginning at the point of specification and continuing through to delivery of the guaranteed products. All activities are carried out in a manner which:

- Uses the framework of ISO9000 Quality Standards to verify the quality of our systems
- Ensures that our products and services are of the highest standards
- Creates continuous improvements to our product through the application of the best quality practices.

#### WARRANTY

The Vitranamel warranty is issued on a project specific basis and is available up to 25 years. Please contact us for further warranty.





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### TESTING AND SPECIFICATIONS: FIRE RESISTANCE

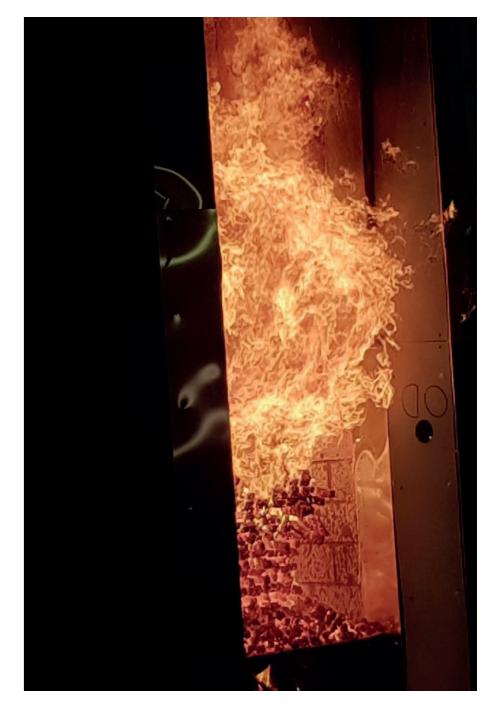
In today's Architecture, it is the technical details, as well as the appearance that count; such as sustainability, thermal insulation, and fire protection. With Vitranamel you have a product that is deemed non-combustible to the requirements of AS1530.1 and Section C1.12 of the BCA.

Vitranamel is highly resistant to heat and can withstand temperatures of above 500°C for prolonged periods with no damage to the coating and no toxic fumes being emitted when exposed to fire. Vitreous enameled steel will withstand rapid cooling by water spray from +400°C to normal room temperatures over a 30 second period.

The Fire Resistance standards achieved with standard Vitranamel are as follows:

Vitranamel			
TEST STANDARD	RES	ULT	
AS 1530.1	DEEMED NON-COMBUSTIBLE		
AS 1530.3	Fire Propagation	0	
	Spread of Flame	0	
	Smoke Development	0-1	







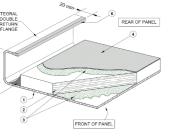
### PANEL TYPES

There are two panel types available for architectural applications:

**Heavy Gauge Panels (F-Type or Flanged Panel)** – used to create more complex profiles that include curves, corners and flat elements, heavy gauge panels are pre-fabricated to the required size and shape by cutting and notching steel sheets, bending the returns and flanges and finally welding, finishing and die penetrant testing the corners prior to enamelling. Face steel thickness is 1.5mm.

#### Typical Composition

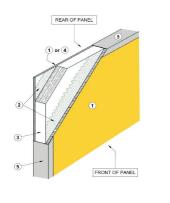
- 1. Vitreous Enamel Steel Plate (1.5mm EQ Steel)
- 2. Core
- 3. Adhesive
- 4. Balancing Backer
- 5. Silicone Seal to Perimeter of Core
- 6. Protective Edge Tape

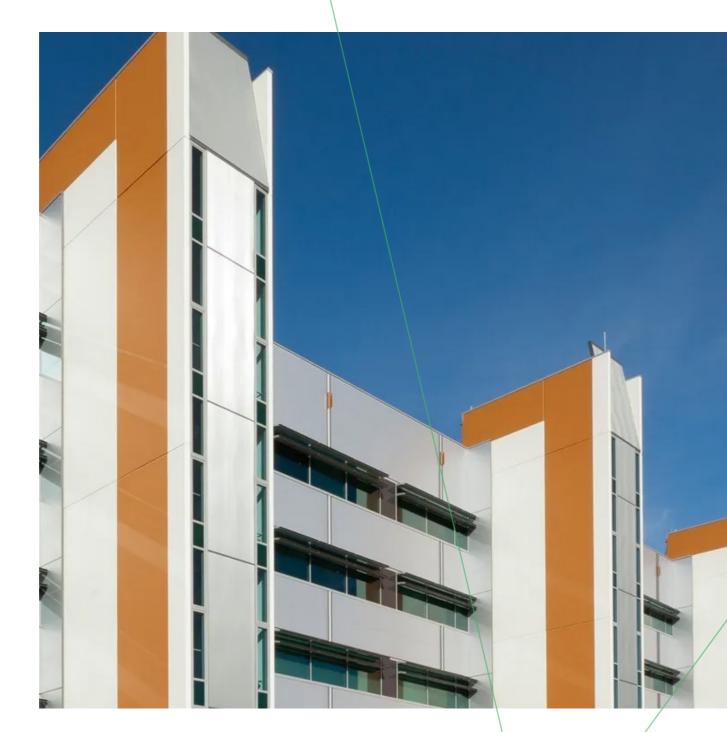


**Light Gauge Panels (C-Type or Composite Panel)** – used principally in lining of vehicular tunnels and curved soffits. Enamel sheets have a flush edge and firing holes are present to provide support points during the enamelling process – extrusion edge covers are therefore necessary at the joints and terminal ends. The thickness of the enamelling quality steel is 0.7mm.

#### Typical Composition

- 1. Vitreous Enamel Steel Plate (0.7mm EQ Steel)
- 2. Core
- 3. Adhesive
- 4. Balancing Backer
- 5. Protective Edge Tape







### **FIXING OPTIONS**

To ensure the best installation is completed, we recommend the use of Valcan Vitrafix framing system and accessories – use of Valcan Vitrafix tooling will ensure that fixings are correctly installed to allow for thermal movement – for more information on installation accessories, contact the team at Valcan.



#### DISCRETE CASSETTE

The standard installation of Vitranamel panels is to be formed into cassette/tray panels with discrete fixings in the joint/reveals, these joints can then be sealed if required to offer a hidden fixing.



#### CUSTOMISABLE OPTIONS

Panels are installed as flat sheets with fixings on the face of the panel, these can be colour matched to the panel as requested.

Vitreous enamel cladding panels are fully customisable to your exact requirements and are delivered ready fabricated for quick and easy installation. Panels can also be finished in any colour to your design and even include pictures or maps.

As well as building façades, vitreous enamel systems can also be used to create visually striking architectural features including window and door linings and wrap around features for balconies, pillars and other facets of your building.

The panels can be delivered to your exact dimensions and specifications and the pre-fabrication can include curved or corner panels to complete the clean façade. This allows VitraNamel to be installed quickly and easily by your contractors.



### **STANDARD COLOURS**

Colour matching options are available where we can match the current façade colours or if you supply a recognised colour reference, i.e. RAL.

Our steel cladding panels are available in a wide range of RAL colours and also custom colour matching is available on request to give you perfect branding or to match specific style requirements.

Vitranamel can also be manufactured with images, icons and wording on the panels. Contact the team at Valcan to discuss your requirements.







VN713 Night Blue

VN703 Gentian Blue





### VITRANAMEL® TECHNICAL INFORMATION

#### SKIN AND CORE

Skin - 1.5mm of Decarbonised Steel (HG Panel) Coating - Vitreous Enamel Standard Core Material - 10mm Calcium Silicate

#### WEIGHT

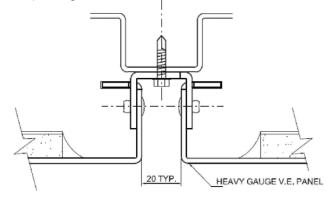
ТҮРЕ	WEIGHT (kg/m²)
Heavy Gauge Panel	34 kg/m²
Light Gauge Panel	26 kg/m²

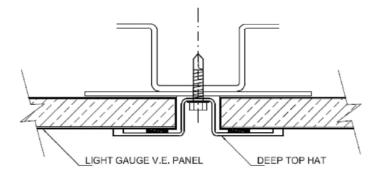
### FIXING

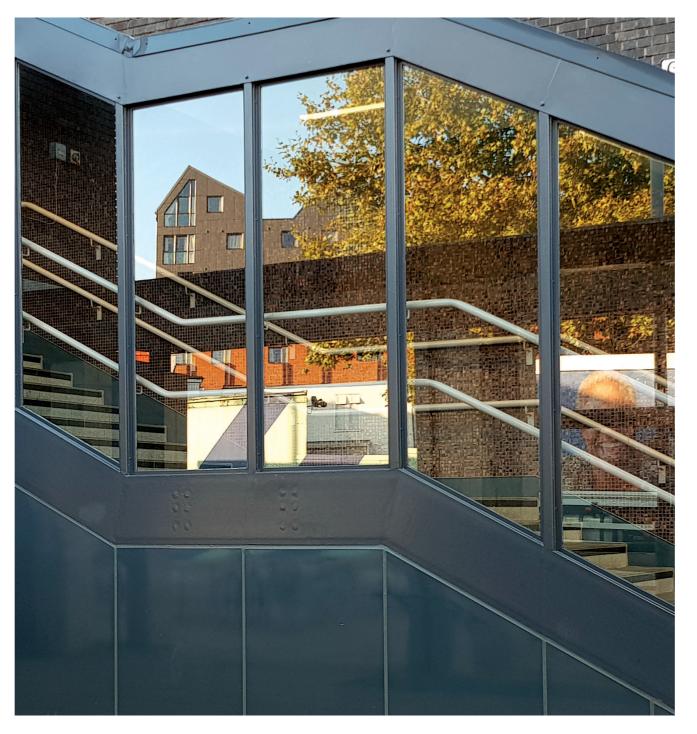
Below are typical details ofr fixing of the Vitranamel panels:

Heavy Gauge Panel











### TECHNICAL DATA

TEST STANDARD	DESCRIPTION	VITRANAMEL RESULT
ASTM B117-07a	Salt spray test	No visual change
ASTM C538-83: 2009	Colour retention	No colour change
ASTM: C481	Aging of sandwich constructions	No visual change
BS 1344.1	Resistance to thermal shock	No visual flaking or crazing of enamel
BS 1344.2: 1975	Resistance to Citric Acid at room temperature	Class AA
BS 1344.5 : 1984	Resistance to hot detergent solutions e.g. for washing textiles	No visible cracking
BS 14483.1 : 2004	Resistance to chemical corrosion	Class AA (both Sulphuric and Citric Acid)
BS 14483.2 : 2004	Resistance to chemical corrosion by boiling acids, neutral liquid and/or their vapours	No visible cracking
BS EN 10209 : 1996, Annex D	Adherence level of enamel	Class 1
BS EN 14483.4 : 2004	Resistance to hot sodium hydroxide	Rate of mass loss = 1.37g/m2/hr
BS EN ISO 15695 : 2001	Scratch resistance	Complies
BS EN ISO 28722 : 2011, Clause 5.3	Resistance to abrasion	Total Mass loss = 0.021g
BS EN ISO 28722 : 2011, Clause 5.4	Impact resistance	No damage
BS EN ISO 8289 : 2011	Low voltage test	0 Defects



### SUSTAINABILITY AT VALCAN: LEADING THE CHARGE FOR A **GREENER FUTURE**

At Valcan, we don't just see sustainability as a duty to our environment, we see it as a distinctive business strategy and a dynamic opportunity to innovate.

Our dedication extends to constantly discovering creative ways to recycle and reuse materials, starting with our very own cladding panels.

We're particularly thrilled about our initiative of recycling previously installed cladding panels and re-purposing them into vital components of our VitraFix<sup>®</sup> cladding subframe system.

This strategic approach not only minimises waste but also enables cost-saving in production and contributes significantly to reducing our carbon footprint.

The cycle of sustainability begins with the careful disassembly of the older cladding panels composed of 5000 grade aluminium.

Once segregated, these reusable materials undergo processing and transformation into novel components for VitraFix<sup>®</sup>. Following this, each component is rigorously tested to meet our stringent quality standards.

Our sustainable methods do more than just helping us honour our commitment to the environment: they equip us to provide our customers with an environmentally friendly choice.

When clients select Valcan, they're assured that



their cladding panels are not just robust and reliable, but they're also contributing to a greener planet with their choice of recycled materials. Our pioneering stance in the cladding industry is a testament to our innovative strategies for waste reduction and our devotion to fostering sustainability.

As we continue to challenge ourselves in exploring new methods of recycling and reusing materials, our focus remains on diminishing our environmental impact and laying the groundwork for a sustainable future.



#### Our Vision for a Greener Future:

At Valcan, our goal is to become a greener and more sustainable company by constantly evaluating and improving our operations. We aim to lead the charge in our industry by:

 Continually researching and implementing innovative, eco-friendly manufacturing processes.

 Promoting responsible sourcing of raw materials and engaging with suppliers who share our commitment to sustainability. Encouraging our employees to adopt sustainable practices, both at work and in their daily lives.

 Collaborating with industry partners to advocate for better environmental policies and standards.

By taking these steps, we hope to create a positive impact on the environment and inspire others within our industry to follow suit. Together, we can build a more sustainable future for generations to come.



#### Partnership with Ecologi:

Valcan has joined forces with Ecologi, a forward-thinking organisation that plants trees and supports community projects worldwide. Through this partnership, we are offsetting our carbon emissions, contributing to reforestation efforts, and investing in global sustainability projects.

#### Recycling Program for Aluminium Panels:

We believe in the power of recycling and have implemented a recycling program for our aluminium panels. Customers can return old or damaged panels to us, and we will recycle the materials, ensuring that resources are utilised efficiently where waste is minimised.





### **CONTINUING PROFESSIONAL DEVELOPMENT (CPD)**



Join our free cladding CPD presentations online via or face to face at your premises.

Our popular CPD focuses on fire safety for buildings over 11m high. Lasts for 1 hour including a round of questions and answers at the end.

This provides a fantastic learning opportunity for architects, installers and construction professionals in the UK.

Topics explained are:

- A Introduction To Valcan
- Rainscreen Cladding Overview How It Works
- Fire Regulations ADB Vol 2 Amendments
- How These Amendments Affect Your Project
- A How To Comply Following The Ban On Combustible Cladding
- EN13501-01 Classification Explained
- The Difference Between A1 / A2 classifications
- The Golden Thread
- The Building Safety Act 2022
- Testing Options
- Valcan Solutions Fibre Cement, ACM & Aluminium etc.
- Case Studies
- Questions & Answers Session

Get in touch with us today and we'll arrange the best date/time:

Call:	01278 428245
imail:	enquiries@valcan.co.uk
Vebsite:	www.valcan.co.uk/cpd

Book your place





#### 18 WWW.VALCAN.CO.UK



The route to compliance of the Golden Thread includes all parties; from the client through to the final resident. It is important that everyone does their part to create a future proof record complying with building regulations as set out in the Approved Document B (ADB). Sequencing of works, inspections, commissioning, environmental hazards and project record keeping is responsibility of the installer/designer/contractor.

## **INSTALLER TOOLBOX TALKS**

In our pursuit of fostering a cultural change in the industry, we stand at the forefront as advocates for implementing Dame Judith Hackitt's Golden Thread Principles. Our aim is to empower clients who choose Valcan products to embrace these principles effectively.

To ensure that our standards remain uncompromised, we kindly request all prospective installers to take part in Toolbox Talks and provide tangible proof of operating a professionally managed business. This encompasses aspects such as accurate pricing, efficient project completion, and the ability to offer a comprehensive package to clients.

\*Note: Sequencing of works, inspection, commissioning, and project record keeping throughout the construction process is the responsibility of the building owner in order to comply with building regulations as set out in Approved Document B. Download the document here.

# **INSTALLATION SUPPORT**

We understand the importance of site visits and quality assurance. If needed, we are happy to arrange a site visit to provide on-site guidance and ensure that the installation is progressing smoothly. Alternatively, we are more than willing to review photographs of the installation to offer remote assistance and double-check any crucial details.

Our aim is to make the installation process as straightforward as possible. With our support, guidance, technical assistance, and comprehensive resources, you can trust that our cladding systems are designed for ease of installation. We are dedicated to your success, and we go the extra mile to ensure your project is completed to the highest standards.\*

Support and Toolbox Talks will be provided on:

- VitraFix<sup>®</sup>, Vitradual<sup>®</sup> & Ceramapanel<sup>®</sup>
- Fabrication Techniques
- Installation Methods
- General Housekeeping
- Questions & Answers

To take part in an Installer Toolbox Talk get in touch with us by speaking to your contact directly.

Alternatively, call us on 01278 428 245 or email us at enquiries@valcan.co.uk and we'll get you registered for the training course.











# VALCAN

The Defining Standard

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