

TECHNICAL INFORMATION



cerama panel

COMPRESSED FIBRE CEMENT FACADE



VALCAN

PART OF THE FAIRVIEW GROUP

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COMPRESSED FIBRE CEMENT FACADE

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ABOUT THIS MANUAL

This manual has been developed to effectively assist fabricators and contractors to work with Valcan Ltd's Fibre Cement Panel: Ceramapanel.

Due to the uncontrollable conditions and methods of job scope, as well as the variable skills and judgment of users/installers and the quality of equipment, tools, etc., the suggestions and recommendations contained in this manual are provided without warranty.

The information and recommendations contained herein are believed to be correct at time of publishing 11/05/2016.

Valcan Ltd reserves the right to revise the contents of this manual.



2.2 COMPANY & BACKGROUND

Valcan Ltd specialises in the design, manufacture and distribution of a suite of quality façade solutions throughout the United Kingdom, Australia and North America. With almost 30 years' experience in the façade industry, we are dedicated to consistently facilitating the successful delivery of innovative facades that meet the requirements and vision of each project.

With one of the largest stock holds in the UK, we have the ability to ensure a consistent and timely supply to our dedicated installer network, in addition to this our flexible and innovative approach allows us to work closely with our clients on each project to deliver the best possible outcome. Valcan Ltd continues to develop our range of façade solutions and maintain a high level of service and support to the construction industry.

OUR MISSION

An innovative and proactive organisation, consistently delivering industry leading façade solutions; renowned for excellence of product and superior customer service.

OUR VISION

To lead the industry through facilitating the successful delivery of innovative façade solutions, which stimulate the creativity of building design.



2.3 PRODUCT DESCRIPTION

Ceramapanel is a through coloured compressed fibre cement façade panel available in 8mm or 12mm thickness (standard).

This is both an aesthetically appealing and cost effective cladding solution offering a truly natural look. Ceramapanel is manufactured by Valcan Ltd for distribution across the UK & Europe.

The application of these prefinished fibre cement cladding sheets is limitless; Ceramapanel is an excellent acoustic dampening solution in high demand for sound-proofing, and has been used for International Airports and tunnel linings across the globe for this very reason.

2.4 ADVANTAGES OF CERAMAPANEL

Throughout its history, Ceramapanel has been proven to have excellent characteristics in many applications.

Additional advantages include:

- Low maintenance
- Robust durability
- Cost effective
- No onsite finishing required
- Environmentally friendly coating system
- Graffiti and scratch resistant
- Very high strength and impact resistance
- Proven performance in harsh environments globally
- Short lead times and fast installation
- Panels supplied with pre-squared edges

APPLICATION



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COMPRESSED FIBRE CEMENT FACADE

The Cermapanel façade system has been designed to be used for external cladding buildings such as;

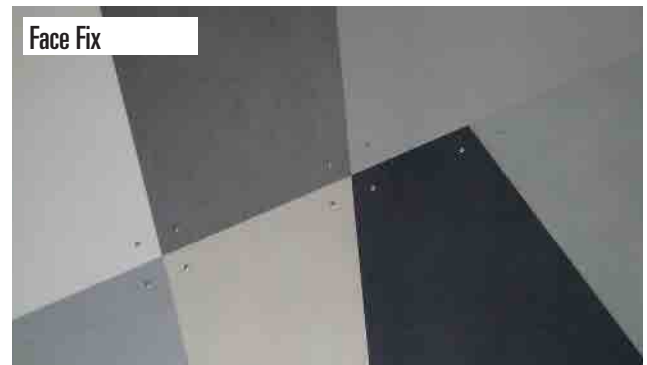
- Supermarkets and Shopping Centres,
- Office Buildings,
- Most Commercial Buildings,
- Residential Homes & Apartment Buildings
- or any other application not excluded by the Design Considerations section of this brochure.

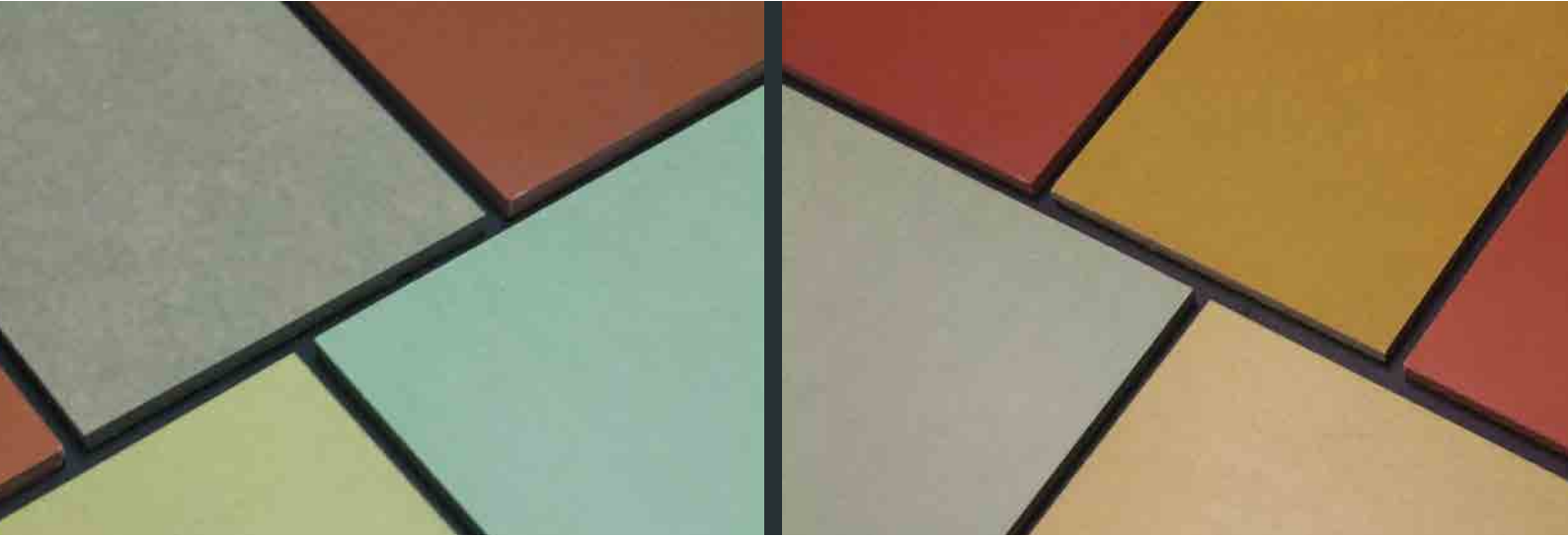
Design Features

- Unlimited Colour Range
- Non-Combustable
- Environmentally friendly coating system
- Robust durability
- Tested weather resistance
- Low maintenance

Construction Features

- Cost effective
- Dimensionally accurate panels
- Quick lead times
- Fast installation
- Easily prefabricated
- 8mm and 12mm panel also available





5.1 COLOUR RANGES

Ceramapanel comes in two Colour Ranges, Natural and Natural+ which is a coated finish. The coated range have a slight grain that runs the length of the panels, this coating is an alkali-resistant varnish using a UV polymerizing system to make the sheet resistant to graffiti. This also allows the panels to be more easily cleaned and maintained for many years. The Natural range resembles nature's earth tones and contain imperfections to mimic natural stone surfaces.

Ceramapanel Natural: Natural cement finish



Ceramapanel Natural+: Includes an anti-graffiti coating which gives a slight shine and much richer tone of colour



PROPERTIES



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COMPRESSED FIBRE CEMENT FACADE

4.1 SIZES

Ceramapanel™ Sizes
(All panels 8 or 12mm thickness)

Thickness	Sheet Sizes	Nominal Weight
8mm	2500 x 1250mm, 3100 x 1250mm	15.4kg/m ²
12mm	2500 x 1250mm, 3100 x 1250mm	22.8kg/m ²

4.2 DURABILITY

Ceramapanel™ façade system has many properties which make it a very durable product, including:

- Immune to permanent water damage in both short and long-term exposure.
- Will not rot, burn or corrode, and is unaffected by termites, air, steam, salt and sunlight.
- Not adversely affected over a temperature range of -20°C and +60°C

The durability of the Ceramapanel™ can be enhanced by periodic inspection and maintenance. Inspections should include examination of the coatings, flashings and seals. Paint finishes must be maintained in accordance with the manufacturer's recommendations. Any cracked or damaged finish or seals which would allow water ingress, must be repaired immediately by recoating or resealing the effected area, or by removing the panel and replacing gaskets. Any damaged flashings, sheets or gaskets must be replaced as for new work. For details on system requirements in different environments refer to Table 1. It is the designer's responsibility to determine the environmental zone, based on site conditions. The durability of the system can be increased by the additional treatment of steelwork, and by painting all exposed sealants to the sealant manufacturer's recommendations. In corrosivity category D, barriers to reduce the ingress of salt laden air are required..





4.3 TECHNICAL & FIRE PROPERTIES

ExpressPanel™ Manufacturing Tolerances

Length	+0 to -2mm
Width	+0 to -2mm
Thickness	+10% to -0%
Diagonals Differen (max)	2mm
Edge Straightness deviation (max)	1mm

Physical Properties

Property	Cemintel™ Compressed Sheet	
	at EMC*	Saturated
Density (kg/n3)	1700	1900
Flexural Strength (Characteristic)		
Parallel to sheet length		
-ultimate (MPa)	25	20
-yield (MPa)	20	13
Parrallel to sheet width		
-ultimate (MPa)	20	16
-yield (MPa)	17	12
Modulus of Elasticity (GPa)	10	9
Thermal Expansion Coefficient	10x10 ⁻⁶ /K° (est. average)	
Moisture Movement		
- from EMC* to saturated	≈ 700 Microstrains (expansion)	
- from 30 to 90% RH (to ASTM C 1185)	≈ 500 Microstrains (expansion)	

NOTE:* EMC (Equilibrium Moisture Content) is at nominally 23oC and 50% Relative Humidity environment conditions.

4.3 THERMAL TESTING

Tests are carried out to find the compliance of Ceramapanel to EN 12467. Boards are tested in a range of temperature between -20°C and +60°C and are classed A5 i.e. the top level class for external applications.

Every day some boards are prepared for testing in our laboratory and for this purpose they are dehydrated in an oven at 105°C. After this process, specimens perform as declared and during tests they reach the class A5.

The thermal conductivity for fibrocement material (0,36 W/mK).

FIRE RESISTANCE

The Ceramapanel™ facade system is deemed to be non-combustible. When tested in accordance with AS1530.3 the Early Fire Hazard indices are as follows:

Ignitability	0
Spread of Flame	0
Heat Evolved	0
Smoke Developed	0

SYSTEM TESTING

The Ceramapanel™ facade system, has been designed and tested by CSR Gyprock & Fibre Cement Research & Development. Ceramapanel™ facade system has passed testing to the following parts of AS/NZS4284-1995 Testing of Building Facades

- Structural Test
- Water Penetration by Static Pressure
- Water Penetration by Cyclic Pressure
- Proof Test

The system has been tested to AS4040.3-1992 Methods of testing roof and wall cladding, Method 3: Resistance to wind pressure for cyclonic regions.

TEXTURED



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5.2 CERMAPANEL TEXTURED

Cermapanel standard range comes in two main finishes, the Natural; a natural cement finish with a hydrophobic finish and the Natural+; includes a transparent, anti-graffiti coating which gives the colours a much richer tone.

Cermapanel textured range offers a very subtle but effective dimension to an already natural finish for that little extra uniqueness.

Cermapanel ~ Grooved



Cermapanel ~ Shot Sawn

These panels have a smooth but bumpy surface like they have been roughly sawn or broken away.





6.0 WARRANTY

Valcan Ltd warrants for 10 years from the date of purchase, the Ceramapanel will be free from defects in materials and manufacture, subject to the conditions outlined below.

For the warranty to be effective, the Ceramapanel must be installed strictly in accordance with the recommended installation methods.

Please check out our website for more information, sample requests and projects at www.valcan.co.uk



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VALCAN LTD PRODUCT RANGE:



vitrabond

ALUMINIUM COMPOSITE PANEL



vitracore G2

ALUMINIUM COMPOSITE PANEL



vitranamel

VITREOUS ENAMEL PANEL / MANUFACTURED BY FAIRVIEW



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