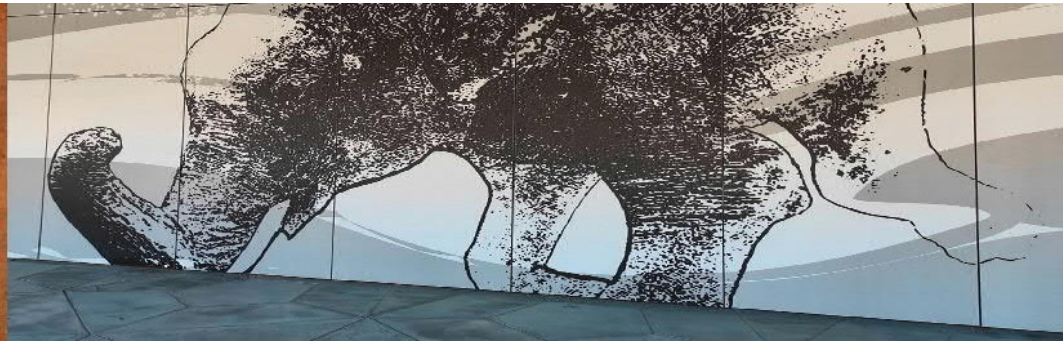


EQUITONE
Fibre cement facade materials

EQUITONE [inspira]
Material Information Sheet

1. Product Appearance

EQUITONE [inspira] is a high-density fibre cement panel with a digital printed surface covered with a UV finishing.

The surface finish is smooth, hard, matt and resistant to UV radiation. providing a hard, dirt resistant surface finish with a high abrasion resistance and a permanent and durable graffiti protection.

The panels are calibrated to ensure a consistent thickness. The rear receives a UV coating.

2. Colour

EQUITONE [inspira] is available in a wide range of designs inspired by nature as well as wood, concrete, stone and rust graphics and personnalised images.

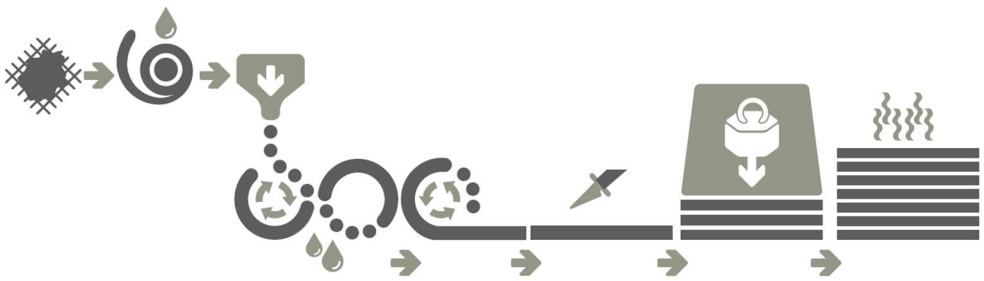
3. Product Composition

EQUITONE [inspira] panels consist of cement, water, mineral fillers, cellulose and synthetic organic fibres, and a colour digital printed surface covered with UV-cured functional topcoats.

EQUITONE [inspira] panels are mass-hydrophobated to reduce water absorption, enhancing their long-term durability.

4. Production Method

EQUITONE [inspira] is a highly compressed, air cured fibre cement material manufactered in Poland (Europe).



EQUITONE [inspira] panels are manufactured through the Hatschek process where the base materials which are mainly cement, fibres, cellulose, water and optional pigments are first mixed together to form a slurry. This slurry is then pumped into several vats with rotating cylindrical sieves on the surface of which a film of fibre cement is formed through a sieving mechanism as they rotate, which is then transferred to a felt belt traveling overhead. This thin layer of fibre cement is then dewatered before being transferred via the felt belt to a forming drum on which several layers of fibre cement are collected and squeezed together until the required thickness is achieved. Once this occurs, this fresh sheet of fibre cement is cut by an automatic cutting knife. A conveyor then transports the sheet to where all the sheets are stacked with an interleaving steel plate. The stacked sheets are then highly compressed, resulting in a high density material.

This is followed by a curing process where the panels harden under ambient temperature and without vapour pressure.

The panels are calibrated for a consistent thickness.

Subsequently EQUITONE [inspira] receives a digital print, with UV hardened topcoats offering a graffiti resistant finish on the front face. The back side is finished with a UV coating to balance the humidity of the panel.

5. Dimensions and Tolerances

EQUITONE [inspira] is available in a standard thickness of 8 mm. The panels are available in trimmed (maximum usable size) formats.

Dimensions	
Nominal Thickness	8 mm

Width	
Trimmed	1250 mm

Length	
Trimmed	2500 mm / 3100 mm

Tolerances[1] (for cut and trimmed panels)	
Thickness	± 0.2 mm
Width	± 1 mm
Length	± 1 mm
Squareness	± 1.0 mm/m

Weight per m² (air dry)	
	16.8 kg/m²

Weight per panel (without pallet)	
2500 x 1250 mm (trimmed)	50.4 kg
3100 x 1250 mm (trimmed)	64.5 kg

Packaging	
Number of panels on pallet	20

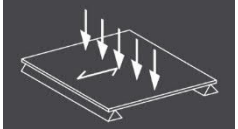
Usable surface per pallet	
2500 x 1250 mm (trimmed)	62.5 m²
3100 x 1250 mm (trimmed)	77.5 m²

Gray scale discoloration according to PN-EN 201056-A2:1996	
Gray scale discoloration	4-5

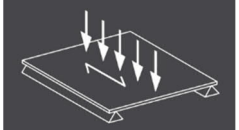
[1] Factory tolerances for trimmed and untrimmed panels outperform the requirements of the EN12467 Level I and II dimensional tolerances, respectively.

6. Material Properties

EQUITONE [inspira] cladding panels conform to the requirements of EN 12467:2012+A1:2018 “Fibre cement flat sheets – Product specification and test methods“. The results below are presented as defined by the standard.



[1]Bending strength perpendicular, load perpendicular to the production (longitudinal) direction



[2]Bending strength parallel, load parallel to the production (longitudinal) direction

Classification				
Type of product		EN12467	NT	
Durability classification		EN12467	Category A	
Strength classification		EN12467	Class 4	
Dimensional tolerances for trimmed panels		EN12467	Level I	
Dimensional tolerances for untrimmed panels		EN12467	Level II	

Bending strength				
Mean modulus of rupture perpendicular[1]	ambient	EN12467	24.5	MPa
Mean modulus of rupture parallel[2]	ambient	EN12467	19.5	MPa
Modulus of rupture[3]	ambient	EN12467	22.0	MPa
Modulus of rupture[3]	wet	EN12467	≥ 18	MPa
Characteristic modulus of rupture[3]	ambient	EN12467	≥ 21.2	MPa

[3] Average of perpendicular and parallel values (Mean of values in both directions)
Note: The characteristic values have been determined according to EN 17468-1:2022, chapter 9.1.2 as the 5 % quantile with 75 % probability.

Other physical requirements and characteristics				
Mean density	dry	EN12467	1850	kg/m³
Moisture movement	30-90 %	EN12467	0.1	%
Mean module of elasticity	ambient	EN12467	12,000	MPa
Water impermeability test		EN12467	No drops/Pass	

Durability requirements		
Freeze-thaw test for category A panel	EN12467	Pass
Heat-rain tests for category A panel	EN12467	Pass
Warm water test	EN12467	Pass
Soak-dry test	EN12467	Pass

Fire and safety		
Reaction to fire	EN13501	A2-s1,d0

Other characteristics				
Thermal movement	α	-	< 0.01	mm/mK
Thermal conductivity	λ	ASTM C518	0.60	W/mK
Poisson’s ratio	ν	-	0.2	-

Note to the units: 1 K (degree Kelvin) = 1°C, 1 MPa (Mega Pascal) = 1 N/mm², M.-% = mass percentage
Note: EQUITONE [inspira] panels also comply with the requirements of ISO8336:2017 “Fibre-cement flat sheets – Product specification and test methods”

Performance to AS/NZS 2908.2(**)

Classification		
Dimensional and geometrical tolerances	AS/NZS 2908.2	Compliant
Durability Classification	AS/NZS 2908.2	Type A
Bending Strength Classification	AS/NZS 2908.2	Category 5
Water Permeability	AS/NZS 2908.2	Compliant
Frost Resistance	AS/NZS 2908.2	Compliant
Warm-Water	AS/NZS 2908.2	Compliant
Heat-Rain	AS/NZS 2908.2	Compliant
Soak-Dry	AS/NZS 2908.2	Compliant

(**) Based on an independent assessment

7. Fire performance

Australia
EQUITONE facade materials are fibre cement sheeting, and as such are deemed non-combustible in accordance with the following clauses of the NCC, and may be used wherever a non-combustible material is required.

- C2D10(6)(d) of the NCC 2022 Volume 1
- H3D2(1)(d) of the NCC 2022 Volume 2
- C1.9e(iv) of the NCC 2019 Volume 1 (Amendment 1)
- 3.7.1.1(d) of the NCC 2019 Volume 2 (Amendment 1)

EQUITONE fibre cement façade materials are classified as a ‘Group 1’ material in compliance with AS5637.1 and Specification C2D11 – Fire hazard properties, of the NCC 2022 Volume 1.

New Zealand
EQUITONE façade materials are classified as Type ‘A’ cladding materials and fully meet the fire properties requirements of external wall cladding materials as outlined in the Verification Method C/VM2 of the NZBC, with Peak Heat Release Rate (kW/m2) of less than (<) 100 and Total Heat Released (MJ/m2) of less than (<) 25 as determined in accordance with ISO 5660.1 at an irradiance of 50 kW/ m2 for a duration of 15 minutes. EQUITONE façade materials are classified as a ‘Group 1-S’ fire resistant material in accordance with the Verification Method C/VM2 (Appendix ‘A’) and ISO5660, and as such are safe and suitable for internal lining and ceiling applications.

8. Advantages

Providing the application guidelines are followed, EQUITONE [inspira] fibre-cement panels have the following superior mix of properties compared to other materials:

- Recyclable according to Environmental Product Declaration (EPD)
- Expected average reference service life of 50 years (based on EPD)
- Fire safe (no fire ignition, no spread of fire)
- Improved sound insulation of the façade

- UV-resistant
- Resistant to extreme temperatures and frost
- Weather resistant
- Resistant to many living organisms (fungi, bacteria, insects, vermin, etc.)
- Resistant to many chemicals
- Strong, rigid panels
- Permanent and durable graffiti protection.

Working with the material:

- The material is easy to drill, cut and install with the proper tools

9. Applications

EQUITONE [inspira] can be used in several ventilated applications, including, but not limited to:

- Ventilated facade or rainscreen cladding
- Window and door reveal
- Exterior ceiling: decorative cladding of ceiling
- Soffits, eaves and verge boards
- Interior wall and ceiling lining (subject to local regulations)

For restrictions on the above-mentioned applications read the specific application guidelines.

The panels may be face or concealed fixed with Etex proprietary or recommended fixing solutions.

EQUITONE [inspira] can not be used in the following applications, but not limited to: Internal applications exposed to direct moisture e.g. wet areas, situations with direct contact with standing snow or ice, applications where exposed to long term temperatures exceeding 80°C.

10. Health and Safety Aspects

During the mechanical machining of panels, dust can be released which can irritate the airways and eyes. Depending on the working conditions, adequate machinery with dust extraction and/or ventilation should be foreseen. The inhalation of fine (respirable size) quartz containing dust, particularly when in high concentrations or over prolonged periods of time can lead to lung disease and an increased risk of lung cancer. For more information, please visit www.equitone.com for the most recent Safety Information Sheet.

11. Maintenance and Cleaning

Refer to the relevant "EQUITONE Cleaning and Maintenance Information" Guide.

12. Certification

EQUITONE façade materials and systems are CodeMark certified in Australia and New Zealand. For more details, please refer to the CodeMark certificates available at www.equitone.com.

The manufacturer can - within the framework of the European Regulation N° 305/2011 (CPR) - present the Declaration of Performance (DOP) of the product such confirming that the product has a CE marking. The CE marking guarantees that the product is in accordance with the basic requirements determined by the harmonized European standard and applicable to the product. The Declaration of Performance is presented in accordance with the CPR and can be found at www.equitone.com.

EQUITONE [inspira] is certified with an Environmental Product Declaration according to ISO 14025 or EN 15804. The life cycle assessment includes raw material and energy production, the actual manufacturing phase, and the use phase of the fibre cement panels. More information available in the Material Sustainability Datasheet.

13. Information

Please visit www.equitone.com for contact details and further information and technical documents.

www.equitone.com