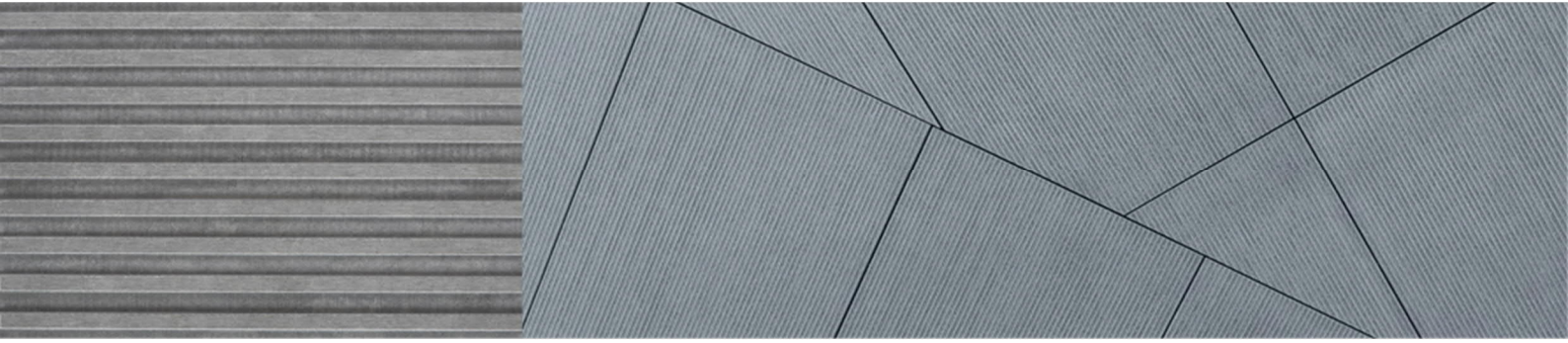


EQUITONE
Fibre cement facade materials

EQUITONE [lines]
Material Information Sheet

1. Product Appearance

EQUITONE [lines] is a high-density through coloured fibre cement panel with no coating. The panel has an honest, pure and natural appearance with natural colour variations and hues. The natural characteristic of the panel may be accentuated by the production process as well as light or dark inclusions.

The front face of the panel features grooves. The top of the ridges are characterised by fine sanding lines in the longitudinal direction. The revealed texture of the fibre cement core in the grooves enhances the 3D surface aspect of the panel. The panel has been made water repellent by means of hydrophobation.

2. Colour

The colour is throughout the panel. Natural colour variations, accentuated by the orientation of the panel, the viewing angle and the effects of light and moisture, strengthen the natural look of the façade.

Colour variations and random hues are part of the natural characteristics of the material. Each panel has its own individual character.

Colour differences are measured according to a simplified CIELAB colour model, by which only the parameter lightness ΔL of the colour is followed. Tolerated colour differences on a dry façade are ΔL*= ± 2.5.

Available colours

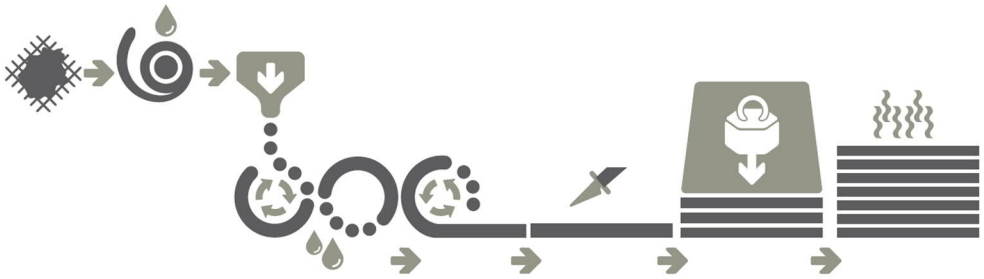
Note: It is not possible to realistically show available colours in literature, therefore the final choice of colours should be made with samples. Please order your samples on the website www.equitone.com.

3. Product Composition

EQUITONE [lines] panels consist of cement, quartz sand, cellulose, natural calcium silicate, inorganic colour pigments, water and additives.

4. Production Method

EQUITONE [lines] is a highly compressed, autoclaved fibre cement material manufactered in Belgium (Europe).



EQUITONE [lines] panels are manufactured through the Hatschek process where the base materials which are mainly cement, sand, cellulose, pigments and water 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 in an autoclave where the panels harden under high temperature and pressure. After curing the panels receive their final finish. The surface is mechanically processed to create a grooved surface.

Subsequently and finally, EQUITONE [lines] panels receive a hydrophobation making the surface water repellant. The back side receives no hydrophobation.

5. Dimensions and Tolerances

EQUITONE [lines] is available in a standard thickness of 10 mm. The panels are always trimmed.

Dimensions	
Panel Thickness	8 mm (valley) / 10 mm (including ridges)
Nominal Thickness (for static bending strength calculation)	8 mm
Number of ridges on full width panel	57
Number of valleys on full width panel	56

Width	
Trimmed	1220 mm

Length	
Trimmed	2500 mm / 3050 mm

Tolerances[1] (for trimmed panels)	
Total thickness	± 1 mm
Thickness in valley	-0.5 / +1.0 mm
Width	± 2 mm
Length	± 2 mm
Squareness	± 1.0 mm/m

Weight per m² (nominal, ambient)	
	16.8 kg/m²

Weight per panel (without pallet)	
2500 x 1220 mm (trimmed)	51.2 kg
3050 x 1220 mm (trimmed)	62.5 kg

Packaging	
Number of panels on pallet	30

Usable surface per pallet	
2500 x 1220 mm (trimmed)	91.5 m²
3050 x 1220 mm (trimmed)	111.6 m²

Colour tolerance (CIELAB) [2]	
ΔL*, brightness	± 2.5

The dimensions of the grooves are purely indicative. These are nominal dimensions subject to manufacturing tolerances. The grooves are longitudinal in the panel.

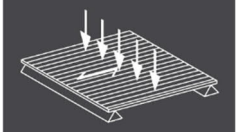
When cutting [lines] panels the center of the valleys or ridges should be kept as reference. When cutting through a ridge, minimum 4 mm of the ridge should be kept at panel edges to prevent damage of the edge.

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

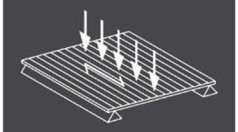
[2] Colour tolerance are only to be measured on the top of the ridges, not in the valleys and only on dry surfaces.

6. Material Properties

EQUITONE [lines] 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	

Bending strength				
Mean modulus of rupture perpendicular[1]	ambient	EN12467	32.0	MPa
Mean modulus of rupture parallel[2]	ambient	EN12467	22.0	MPa
Modulus of rupture[3]	ambient	EN12467	27.0	MPa
Modulus of rupture[3]	wet	EN12467	23.5	MPa
Characteristic modulus of rupture[3]	ambient	EN12467	≥ 25.0	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	1630	kg/m³
Moisture movement	30-90 %	EN12467	<0.08	%
Mean module of elasticity	ambient	EN12467	14,000	MPa
Water impermeability test		EN12467	No drops/Pass	
Characteristic dead load		-	0.18	kN/m²

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	EN13501-1	A2-s1,d0

Other characteristics				
Thermal movement	α	-	0.01	mm/mK
Thermal conductivity	λ	ASTM C518	0.39	W/mK
Moisture content at 20°C, 65% humidity		-	6	M.-%
Poisson's ratio	ν	-	0.2	-
Total volatile organic compounds (TVOC)		CDPH Method	< 0.5	mg/m³
Individual VOC			< limit	
Formaldehyde			≤ 0.009	mg/m³

Note to the units: 1 K (degree Kelvin) = 1°C, 1 MPa (Mega Pascal) = 1 N/mm², M.-% = mass percentage

Note: EQUITONE [lines] 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 and ISO8336 independent testing

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 [lines] 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 facade
- UV-resistant
- Resistant to extreme temperatures
- Weather resistant
- Resistant to many living organisms (fungi, bacteria, insects, vermin, etc.)
- Resistant to many chemicals
- Strong and rigid panel
- Hail impact tested
- Can be ideally combined with [tectiva] and [lunara] in the same colour
- The unique 3D design plays with natural light to produce compelling visual effects

Working with the material:

- The material is easy to drill, cut and install with the proper tools
- Cut edges do not need to be sealed

9. Applications

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

- Ventilated façade 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 [lines] 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, and roof applications.

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.

The manufacturing facility holds the latest versions of the following ISO certificates

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- ISO 45001 Occupational Health and Safety

EQUITONE [lines] 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.

EQUITONE [lines] is Cradle to Cradle Certified at the Bronze level.

13. Information

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

www.equitone.com