



EQUITONE [inspires] Material Information Sheet

1. Product Appearance

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

The surface finish is smooth, hard, matte, and resistant to UV radiation. The UV finishing provides a hard, dirt resistant surface finish with a high abrasion resistance and a permanent and durable anti-graffiti surface.

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

2. Color

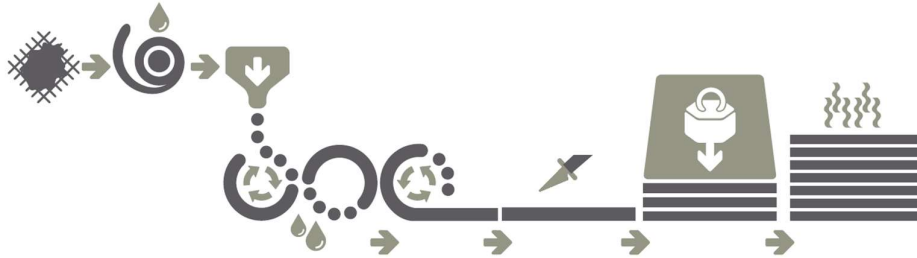
EQUITONE [inspires] is available in a wide range of designs inspired by nature including wood, concrete, stone, and rust graphics. The digital print technology also allows for custom designs and images to be printed on the panel.

3. Product Composition

EQUITONE [inspires] panels consist of cement, water, mineral fillers, cellulose, and synthetic organic reinforcing fibers. This creates an ASTM E84 Class A material with 0 flame spread and 0 smoke development. The finish consists of a digitally printed surface covered with a UV-cured topcoat.

4. Production Method

EQUITONE [inspires] is a highly compressed, air-cured fiber cement material manufactured in Poland (Europe).



EQUITONE [inspires] panels are manufactured through the Hatschek process where the base materials which are mainly cement, fibers, 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 fiber cement is formed through a sieving mechanism as they rotate, which is then transferred to a felt belt traveling overhead. This thin layer of fiber cement is then dewatered before being transferred via the felt belt to a forming drum on which several layers of fiber cement are collected and squeezed together until the required thickness is achieved. Once this occurs, this fresh sheet of fiber 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 vapor pressure.

The panels are calibrated for a consistent thickness.

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

5. Dimensions and Tolerances (Imperial)

EQUITONE [inspires] is available in a standard thickness of 5/16 in. The panels are available in trimmed (maximum usable size) formats.

Dimensions	
Nominal Thickness	5/16 in
Width	
Trimmed	49 in
Length	
Trimmed	98 in / 122 in
Tolerances ¹ (for cut and trimmed panels)	
Thickness	0.008 in
Width	0.039 in
Length	0.039 in
Squareness	0.039 in
Weight per m ² (air dry)	
	3.44 psf
Weight per panel (without pallet)	
2500 x 1250 mm (trimmed)	116 lbs
3100 x 1250 mm (trimmed)	144 lbs
Packaging	
Number of panels on a pallet	20
Usable surface per pallet	
2500 x 1250 mm (trimmed)	672.7 ft ²
3100 x 1250 mm (trimmed)	834.2 ft ²
Gray scale discoloration according to PN-EN 201056-A2:1996	
Gray scale discoloration	4-5

¹ Factory tolerances for trimmed outperform the requirements of the EN12467 Level I and II dimensional tolerances, respectively; as well as all criteria set forth on ASTM C1185.

² Color tolerance are only to be measured on dry surfaces. The color deviation may differ depending on the angle of light incidence and the angle of view.

5.1 Dimensions and Tolerances (Metric)

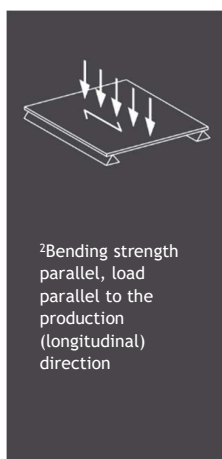
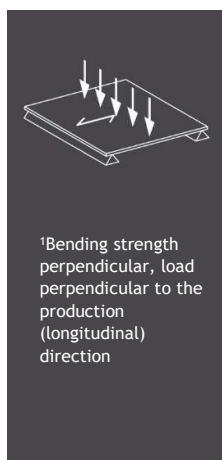
EQUITONE [inspires] is available in a standard thickness of 8 mm. The panels are available in trimmed (maximum usable size) formats.

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 m ² (air dry)	
	16.8 kg/m ²
Weight per panel (without pallet)	
2500 x 1250 mm (trimmed)	52.5 kg
3100 x 1250 mm (trimmed)	65.1 kg
Packaging	
Number of panels on pallet	20
Usable surface per pallet	
2500 x 1250 mm (trimmed)	62.5 m ²
3100 x 1250 mm (trimmed)	77.5 m ²
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 (EN)

EQUITONE [inspires] cladding panels conform to the requirements of EN 12467:2012+A2:2018 “Fiber cement flat sheets - Product specification and test methods.” The results below are presented as defined by the standard.



Classification				
Type of product		EN 12467	NT	
Durability classification		EN 12467	Category A	
Strength classification		EN 12467	Class 4	
Dimensional tolerances for trimmed panels		EN 12467	Level I	
Dimensional tolerances for untrimmed panels		EN 12467	Level II	
Physical requirements and characteristics				
Mean density	dry	EN 12467	1750	kg/m ³
Characteristics dead load gk (8 mm)	-	-	0.17	kN/m ²
Characteristic dead load gk (12 mm)	-	-	0.26	kN/ m ²
Moisture movement	30-90%	EN 12467	0.1	%
Characteristic bending strength perp. ¹ ambient		EN 12467	24.0	MPa
Characteristic bending strength par. ² ambient		EN 12467	18.5	MPa
Partial safety factor γ_m^3	ambient	-	2.0	-
Mean module of elasticity	ambient	EN 12647	12,000	MPa
Water impermeability	-	EN 12647	No Drops /Pass	
³ Recommendation for the safety concept according to the Eurocode standard if no national regulation exists.				
Durability requirements				
Freeze-thaw test for Category A panel		EN 12467	Pass	
Heat-rain tests for Category A panel		EN 12467	Pass	
Warm water test		EN 12467	Pass	
Soak-dry test		EN 12467	Pass	
Fire and Safety				
Fire Classification		EN 13501	A2-s1,d0	
Flame spread rating		ULC S102	0	
Smoke development classification		ULC S102	0	
Other characteristics				
Thermal movement	α	-	0.01	mm/mK
Thermal conductivity	λ	ASTM C518	0.407	W/mK
Moisture content at 20 °C, 65 % humidity		-	< 10%	M. - %
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 [inspires] panels also comply with the requirements of ISO8336:2017 “Fiber-cement flat sheets - Product specification and test methods.”

6.1 Equivalent Material Properties (ASTM)

Classification				
Minimum strength classification		ASTM C1186	Grade III	
Dimensional tolerances for trimmed panels		ASTM C1186	Pass	
Physical requirements and characteristics				
Mean density	dry	ASTM C1185	≥ 106	lb/ft ³
Moisture movement	30-90 %	ASTM C1185	≤ 0.12%	%
Characteristic flexural strength	dry	ASTM C1185	≥ 2320	psi
Characteristic flexural strength	wet	ASTM C1185	≥ 2160	psi
Water tightness		ASTM C1186	Pass	
Moisture content		ASTM C1185	≤ 12%	%
Durability requirements				
Frost resistance (freeze/thaw)		ASTM C1186	Pass	
Warm water resistance test		ASTM C1186	Pass	
Mean water absorption		ASTM C1185	≤ 8%	%
Fire and safety				
Material burning characteristics		ASTM E84	Class A	
Flame spread index			0	
Smoke development index			0	
Other characteristics				
Thermal movement	α	-	5.5e ⁻⁶	in/in ° F
Thermal conductivity	λ	ASTM C518	≤ 0.25	BTU/h ft ° F

Notes:

1. EQUITONE [inspires] cladding panels meet the minimum requirements of the International Building Code (IBC).

7. Advantages

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

- Reusable according to Environmental Product Declaration (EPD)
- Expected average reference service life of 50 years (based on EPD)
- Improved sound dampening 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

8. Applications

EQUITONE [inspires] 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 [inspires] cannot 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, and applications where exposed to long-term temperatures exceeding 80°C/176°F.

9. 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.

10. Maintenance and Cleaning

Refer to the relevant "EQUITONE Cleaning Information" Guide.

11. Certification



EQUITONE [inspires] 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 fiber cement panels. More information is available in the Material Sustainability Datasheet.

12. Information



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

Disclaimer

The information in this document is correct at the time of issuing. However, due to our committed program of continuous material and system development, we reserve the right to amend or alter the information contained therein without prior notice. Please visit www.equitone.com to ensure you have the most current version. All figures contained in this document are illustrations and should not be used as construction drawings. This information is supplied in good faith and no liability can be accepted for any loss or damage resulting from its use. This document is protected by international copyright laws. Reproduction and distribution in whole or in part without prior written permission is strictly prohibited. EQUITONE and logos are trademarks of Etex NV or an affiliate thereof. Any use without authorization is strictly prohibited and may violate trademark laws.



www.equitone.com

USA/Canada
1731 Fred Lawson Dr. Maryville TN, 37801
Tel: +1 865 268 0654
E-mail: info.usa@equitone.com
www.equitone.com/en-us/
www.equitone.com/en-ca/