EQUITONE
Fibre cement facade materials

EQUITONE [coloura]
Material Information Sheet

1. Product Appearance

EQUITONE [coloura] is a high-density fibre cement panel with a coloured double layer PU-acrylic coating.

The surface finish is smooth, hard, matt and resistant to UV radiation.

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

2. Colour

EQUITONE [coloura] is available in a wide range of standard colours and specials colours.

The allowable tolerance of shade between the EQUITONE [coloura] materials is minimal and is measured according to the CIELAB colour model. The allowable dry mean averages of three readings are ΔL* (brightness) of ±1.0, Δa* (+red/-green) of ±0.75 and Δb* (+yellow/-blue) of ±0.75 compared to the production benchmark sample and measured with the same device.

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

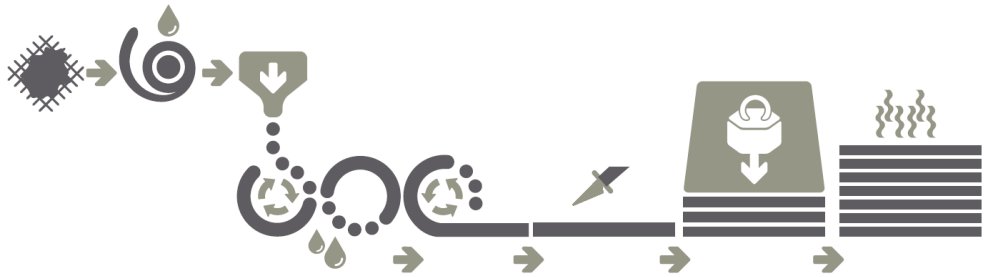
3. Product Composition

EQUITONE [coloura] panels consist of cement, water, mineral fillers, cellulose and synthetic organic reinforcing fibres. The panels are mass-hydrophated and have a coloured double layer PU-acrylic top coating and the back side is finished with a UV coating

EQUITONE [coloura] panels are mass hydorphobated to limit water absorption for a higher durabilty in time.

4. Production Method

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



EQUITONE [coloura] 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.

Subsequently EQUITONE [coloura] receives and a coloured double layer PU-acrylic coating and the back side is finished with a UV coating.

The panels are calibrated for a consistent thickness. Finally the panels are trimmed and chamfered.

5. Dimensions and Tolerances

EQUITONE [coloura] 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	
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)	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 m²
3100 x 1250 mm (trimmed)	77.5 m²

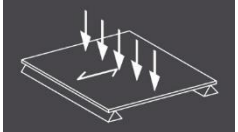
Colour tolerance (CIELAB) [2]	
ΔL*, brightness	± 1.0
Δa*, + red/ - green	± 0.75
Δb*, + yellow/ - blue	± 0.75

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

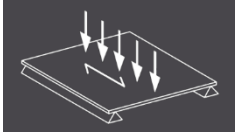
[2] Colour tolerance are only to be measured on dry surfaces. The colour deviation may differ depending on the angle of light incidence and the angle of view

6. Material Properties

EQUITONE [coloura] 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	

Physical requirements and characteristics				
Mean density	dry	EN12467	1850	kg/m³
Moisture movement	30-90 %	EN12467	0.1	%
Characteristic bending strength perp.[1]	ambient	EN12467	24.0	MPa
Characteristic bending strength par.[2]	ambient	EN12467	18.5	MPa
Partial safety factor γ_m[3]	ambient	-	2.0	-
Mean module of elasticity	ambient	EN12467	12,000	MPa
Water impermeability test		EN12467	No drops/Pass	

[3] Recommendation for the safety concept according to the Eurocode standard if no national regulations exist.

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 [coloura] panels also comply with the requirements of ISO8336:2017 “Fibre-cement flat sheets – Product specification and test methods“

7. Advantages

Providing the application guidelines are followed, EQUITONE [coloura] 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

Working with the material:

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

8. Applications

EQUITONE [coloura] 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 [coloura] 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.

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

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 [coloura] 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.

12. Information

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