EQUITONE
Fibre cement facade materials

EQUITONE [tectiva]
Material Information Sheet

1. Product Appearance

EQUITONE [tectiva] 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 surface of the panel is characterised by fine sanding lines in the longitudinal direction. However, the panels are not considered directional and may be installed in any direction to enhance the natural look of the facade.

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 facade.

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 facade are $\Delta L^* = \pm 2.5$.

Available colours

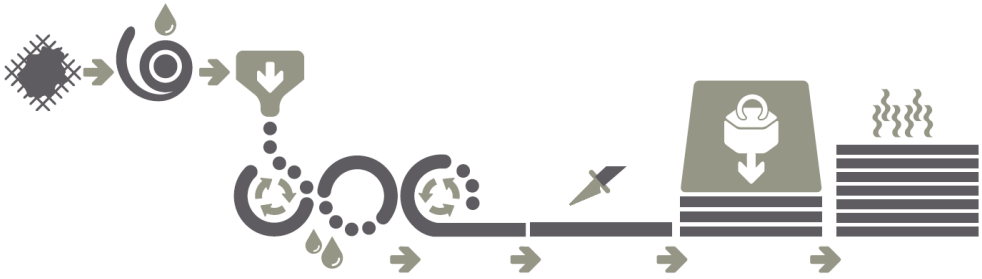
Note: It is not possible to realistically show available colours in literature, therefore the final choice of colours should be made with samples. Please order your samples on the website www.equitone.com

3. Product Composition

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

4. Production Method

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



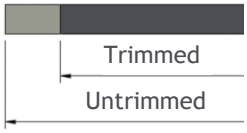
EQUITONE [tectiva] panels are manufactured through the Hatschek process where the base materials which are mainly cement, sand, cellulose, pigments and water are first mixed together to form a slurry. This slurry is then pumped into several vats with rotating cylindrical sieves on the surface of which 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.

Subsequently and finally, EQUITONE [tectiva] panels receive a hydrophobation making them water repellant.

5. Dimensions and Tolerances

EQUITONE [tectiva] is available in a standard thickness of 8 mm and also in 10 mm thickness for specific applications or fixings (minimal order quantities may apply). The panels are available in either untrimmed (production dimension) or trimmed (maximum usable size) formats.



The panel must not be installed with untrimmed edges. Approximately 10 mm needs to be trimmed from each of the untrimmed (raw) edges.

Dimensions		
Nominal Thickness	8 mm	10 mm

Width	
Trimmed	1220 mm
Untrimmed	1240 mm

Length	
Trimmed	2500 mm / 3050 mm
Untrimmed	2520 mm / 3070 mm

Tolerances[1] (for trimmed panels)		
Thickness	-0.5/+0.8 mm	-0.5/+1.0 mm
Width	± 3 mm	
Length	± 3 mm	
Squareness	± 1.0 mm/m	

Tolerances[1] (for untrimmed panels)		
Thickness	-0.5/+0.8 mm	-0.5/+1.0 mm
Width	± 5 mm	
Length	± 5 mm	
Squareness	± 2.0 mm/m	

Weight per m² (nominal, ambient)		
	14.9 kg/m²	18.6 kg/m²

Weight per panel (without pallet)		
2500 x 1220 mm (trimmed)	45.4 kg	56.7 kg
3050 x 1220 mm (trimmed)	55.4 kg	69.2 kg
2520 x 1240 mm (untrimmed)	46.6 kg	58.1 kg
3070 x 1240 mm (untrimmed)	56.7 kg	70.8 kg

Packaging		
Number of panels on pallet	40	30

Usable surface per pallet		
2500 x 1220 mm (trimmed)	122.0 m²	91.5 m²
3050 x 1220 mm (trimmed)	148.8 m²	111.6 m²

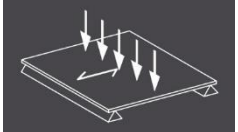
Colour tolerance (CIELAB) [2]
ΔL*, brightness = ± 2.5

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

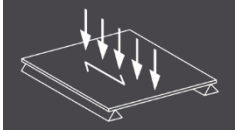
[2] Colour tolerance are only to be measured on dry surfaces.

6. Material Properties

EQUITONE [tectiva] cladding panels conform to the requirements of EN 12467:2012+A2:2018 “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 5	
Dimensional tolerances for trimmed panels		EN12467	Level I	
Dimensional tolerances for untrimmed panels		EN12467	Level II	

Physical requirements and characteristics				
Mean density	dry	EN12467	1630	kg/m³
Moisture movement	30-90 %	EN12467	<0.08	%
Mean bending strength perpendicular[1]	ambient	EN12467	32.0	MPa
Mean bending strength parallel[2]	ambient	EN12467	22.0	MPa
Average bending strength	wet	EN12467	≥24.0	MPa
Mean module of elasticity	ambient	EN12467	14,000	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	EN13501-1	A2-s1,d0	

Other characteristics				
Thermal movement	α	-	0.01	mm/mK
Thermal conductivity	λ	ASTM C518	0.39	W/mK
Moisture content at 23°C, 80 % humidity		-	6	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 [tectiva] 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 [tectiva] 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 [lunara] and [linea] in the same colour

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
- As the material is uncoated, minor scratches or stains may be sanded off

8. Applications

EQUITONE [tectiva] 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 [tectiva] 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.

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.

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 [tectiva] 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.