**H92 RAINSCREEN CLADDING**

To be read with preliminaries/ general conditions – please refer to Planning and Application Guide

**TYPES OF RAINSCREEN CLADDING**

120 **RAINSCREEN CLADDING:**

**Product Appearance:**

EQUITONE [linea] LT is a through coloured panel with no coating. As the panel has an honest, pure and natural appearance, colour differences are possible. The surface of the sheet is characterised by fine sanding lines and white spots. The EQUITONE [linea] features grooves to the front face of the board. The rear receives no back-sealing coating.

**Primary Support Structure** (delete as necessary)**:**

Aluminium frame / timber frame / steel frame / concrete frame / brickwork / dense concrete blockwork (minimum 1450 kg/m3) / lightweight steel framing / timber frame / existing masonry.

**Rainscreen Facade: EQUITONE Fibre Cement**

**Manufacturer:**

Etex (Exteriors) UK Ltd

Wellington Road, Burton upon Trent, Staffordshire, DE14 2AP

Tel: +441283 501505 Website: www.equitone.co.uk Email: techuk@etexgroup.com

**Product Reference: EQUITONE [linea]**

**Product composition:**

* Portland Cement
* Selected mineral fillers providing extra smooth surface
* Organic reinforcing fibres
* Mineral and organic pigments
* Functional additives

**Features and benefits:**

* BBA approved.
* Fire Classification A2-s1,d0 .
* Sound insulating.
* Resistant to extreme temperatures and frost.
* Water resistant (if in compliance with application guideline).
* Resistant to many living organisms (fungi, bacteria, insects, vermin, etc).
* Resistant to many chemicals.
* Environmentally friendly, no harmful gas emissions.
* Strong, rigid panels.
* EPD available.

**Thickness:**

10mm

**Colour:** (delete as necessary)

Chalk (LT90)

Hessian (LT60)

Pebble (LT20)

**Fasteners:**

The panels should be fixed using EQUITONE approved fixings in accordance with the EQUITONE Planning & Application Guide.

The EQUITONE UNI-Screw should be used should be used in conjunction with EPDM, a 7mm diameter drill hole is required. Minimum edge distances apply.

**Number and Location:**

The number and location of the fasteners is dependent on local conditions and must be approved by a competent person.

The suppliers of the supporting aluminium frame will provide the necessary static calculations required to position these undercut holes.

Joints can be open or baffled, if baffled a 0.6mm Equitone aluminium polyester powder coated or anodised profile can be used.

**Joint Type:**

Optimum width of the joints between large panels is 10mm. The minimum permissible joint is 8mm while the maximum would be 12mm. Deviation from this requires confirmation prior to installation.

**Air Gap:**

A clear cavity of 30mm must be maintained immediately behind the back of the panel.

A variety of backing structures can be used in accordance with the EQUITONE Planning & Application Guide and the manufacturer recommendations.

**Secondary Support Structure** (Delete as necessary)**:**

Aluminium frame

Can be either non adjustable Omega and Zed framing or adjustable Nvelope T and L profiles with helping hand brackets.

The aluminium subframe systems is designed in accordance with BS EN 1090-3:2008 and / or Euro code 9 – Parts 1-4

This aluminium can be complemented and further improved by additional treatment including anodization whilst still maintaining a Euroclass A1 fire rating.

These systems only use the superior 6005 T6 alloy which provides strength and good performance.

Timber frame

The timber used to hold the Equitone panels in the UK has to follow the standard BS 5268-2 ‘Structural use of timber’.

The vertical battens to which the panels are fixed are to be planed on one face and one edge to ensure the correct levelling. A small gap of 5mm should be left between the batten ends.

 Panels must not be fixed over separate vertical rails – joints in rails to match joints in panels.

 Anchor specification of support frame to be calculated by an Engineer.

 Ensure Battens are protected.

Supporting the vertical battens can be done in 4 ways;

 Vertical battens fixed to horizontal counter-battens.

 Vertical battens fixed to galvanised brackets

 Vertical battens fixed to aluminium brackets

 Vertical battens suspended with special anchors

All vertical support battens are to be covered with a UV resistant material. This can be either an EPDM or aluminium strip. This strip must be wide enough to cover the batten and overhang each side by at least 5mm

Steel frame to manufacturer recommendations

This system consists of an angle bracket which is anchored back to the wall. This bracket then supports the vertical “Ω” (omega or tophat) and “U” rails which in turn support the EQUITONE Panels. A “Z” rail can be used instead of a “U” rail.

 Always use stainless steel fixings. Care must be taken to avoid bimetallic corrosion.

 Provide protective coating on cut edges.

 Panels must not be fixed over separate vertical rails – joints in rails to match joints in panels.

Vertical rails ensure that the air flow in the cavity space is not disrupted and that there is free drainage of any moisture.

776 **Thermal Insulation**:

It is obligatory to fix the insulation with approved fasteners and not to rely on the vertical battens.

U-Value

The thermal transmittance (U-value) is expressed as W/m²K (Watts per metre squared Kelvin) and defines the ability of an element of a structure to transmit heat under steady conditions. The lower this value the better the performance of the wall.

Rockwool Duo Slab is a non-combustible stone wool insulation that provides a firm and robust surface for the application of fixings, while the resilient underside can accommodate unevenness in the substrate.

785 **Breather Membrane:**

As per manufacturers recommendations.

995 **Maintenance and Cleaning:**

For minor soiling, washing with a mild household detergent or soft soap solution followed by rinsing with clear water. For specific instructions refer to the EQUITONE Cleaning & Maintenance guides.

**Production Method:**

EQUITONE [linea] LT sheets are manufactured on a Hatschek machine, are double pressed, autoclaved, calibrated and sanded. Afterwards EQUITONE [linea] LT is made water repellent on the front and back by means of a hydrophobation.

**Dimensions: 10mm**

**Size rectified trimmed:**  2500mm x 1220mm or 3050mm x 1220mm

Panel Weight (air-dried) **10mm** 16.8 kg/m²

Panel Weight (2500mm x 1220mm) **10mm** 51.2 kg

Panel Weight (3050mm x 1220mm) **10mm** 62.5 kg

**Tolerances rectified trimmed:**

Thickness 10mm ± 1mm

Thickness (in 8mm valley) - 0.5mm / + 1.0mm

Length ± 2mm

Width ± 2mm

Squareness ± 1.0mm/m

If fabricated by a third party refer to their manufacturing tolerance.

**Technical Properties:**

EQUITONE [linea] LT cladding panels conform to the requirements of EN 12467:2012+A2:2018 “Fibre cement flat sheets – Product specification and test methods”.

**Impact Loads**:

Suitable for categories III and IV to the EAD 090062-00-0404: 2018.

**Panel Edge:**

It is recommended to sand/chamfer the decorative edge/corner of the panels to remove the sharp arris, after cutting them to size. This reduces the possibility of damage and improves their appearance.

**Health and Safety:**

During the mechanical machining of panels, dust can be released which can irritate the airways and eyes. 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. Depending on the working conditions, adequate machinery with dust extraction and/or ventilation should be foreseen. For more information, please check the Safety Data Sheet (based on 1907/2006/EC, article 31).

EQUITONE [linea] is certified with an Environmental Product Declaration according to ISO 14025 (available from local support).

The life cycle assessment includes raw material and energy production, the actual manufacturing phase, and the use phase of the fibre cement panels.