

Product Details

FERMACELL gypsum fibreboard has been tested independently for use as a backer board in rainscreen applications. Testing has shown it to be weather resistant, and that it does not degrade with permanent exposure.

Discolouration may occur due to moisture absorption in the board surface. A surface treatment or other protection is recommended for prolonged exposure prior to the installation of the cladding system.

Test in accordance with CWCT Standard Test Methods at UKAS accredited facility.

Taylor Woodrow Technology

Leighton Buzzard
LU7 40H

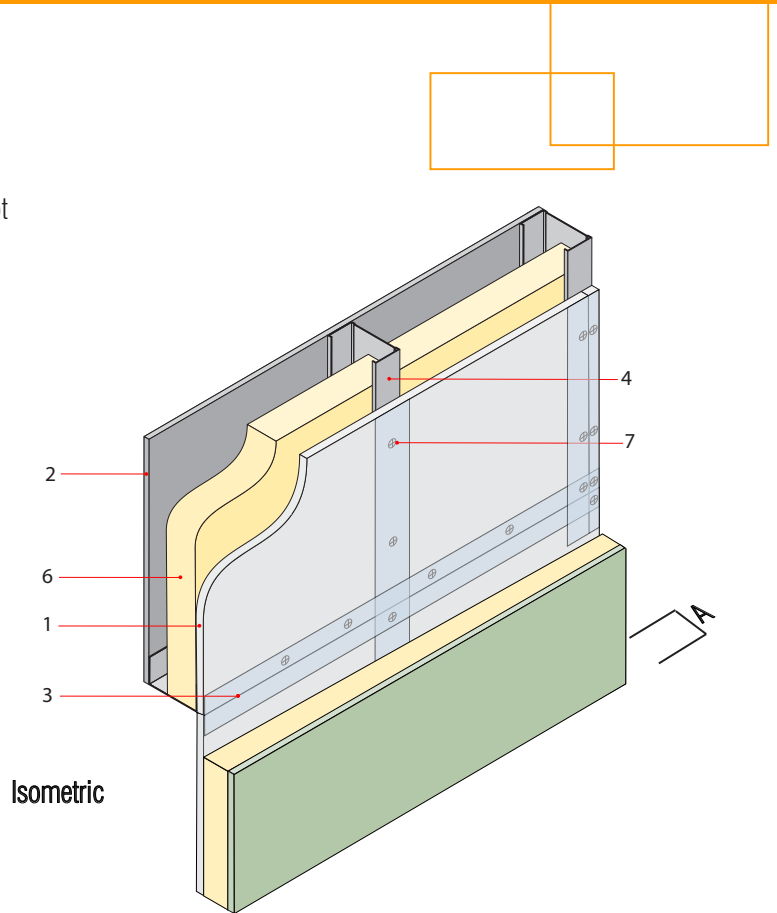
Test Sequence

- i) Water tightness : Static
- ii) Air Permeability : Pressure Cycling
- iii) Wind Resistance : up to 1.5 kN (+Ve & -Ve)
- iv) Air Permeability : Pressure Cycling
- v) Water tightness : Static
- vi) Wind Resistance : Above 2.1 kN (+Ve & -Ve)
- vii) Dynamic Water Test : 600 Kpa

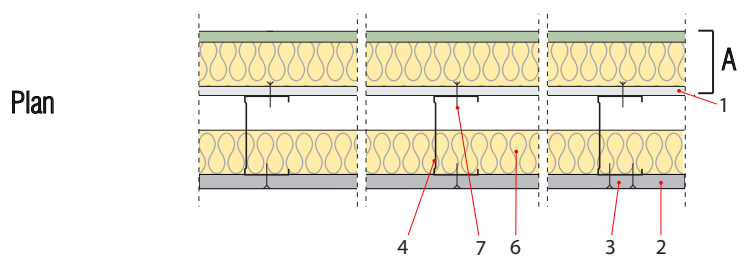
1. 12.5mm FERMACELL Square edge board
2. Dry Lining (FERMACELL / Internal Lining Board) with vapour control layer where required
3. FERMACELL Jointstik adhesive to horizontal joints and minimum 50 mm foil tape over all joints and screws.
4. Metal or Timber stud to suit loading requirements.
5. Head & Foot Track
6. Insulation
7. Screws wafer head zinc plated 4.2 mm gauge with 10.5 mm Head . eg Hilti S-DD03Z 4.2 x 25 mm @ 150 mm c/c.
8. Anchor Fixing

A Shown is an indicative cladding system using adhesive and fixings. Suitable system to be specified by architect or specifier.

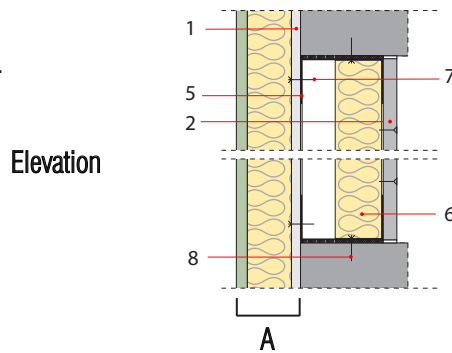
FERMACELL is not only an excellent Rainscreen backer material, FERMACELL is also a high performance, multipurpose building board. It combines in a single product exceptional fire, impact and moisture resistant properties with high levels of acoustic insulation and weight carrying capacity.



Isometric



Plan



Elevation

10 mm Fermacell

Fixing type	Material Condition	Applied Load
6 mm Woodscrew	Dry	0.6 KN
6H Insulation screw	Dry	0.7 KN
5 mm Woodscrew	Dry	0.6 KN
6 mm Woodscrew	Soaked	0.6 KN
6 H Insulation Screw	Soaked	0.6 KN
5 mm Woodscrew	Soaked	0.7 KN

12.5 mm Fermacell

Fixing type	Material Condition	Applied Load
6 mm Woodscrew	Dry	0.8 KN
6H Insulation screw	Dry	0.9 KN
5 mm Woodscrew	Dry	0.8 KN
6 mm Woodscrew	Soaked	0.7 KN
6 H Insulation Screw	Soaked	0.9 KN
5 mm Woodscrew	Soaked	0.7 KN

15 mm Fermacell

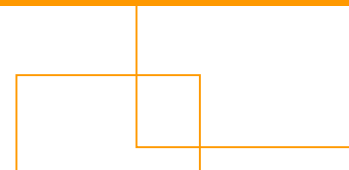
Fixing type	Material Condition	Applied Load
6 mm Woodscrew	Dry	1.1 KN
6H Insulation screw	Dry	1.0 KN
5 mm Woodscrew	Dry	1.1 KN
6 mm Woodscrew	Soaked	1.0 KN
6 H Insulation Screw	Soaked	0.9 KN
5 mm Woodscrew	Soaked	1.0 KN

Independent pull out tests conducted by:

Wetherby Building Systems Ltd
 Golbourne
 Warrington
 WA3 3GS



fermacell FACADE BACKER BOARD SYSTEM



Nominal density, strength	
Nominal density, strength (Production target)	1150 ± 50 kg/m ³
Bending strength (value after drying at 40°C), at right angles to the board surface	≥ 5.9 N/mm ²
Transverse strength	≥ 0.3 N/mm ²
Certified tensil or according to DIN 1052 (Permit No Z-9.1-434)	
Bending perpendicular to the board surface	≥ 1.2 N/mm ²
Bending in board surface	≥ 1.1 N/mm ²
Tension in board surface	≥ 0.5 N/mm ²
Pressure in board surface	≥ 2.0 N/mm ²
Pressure perpendicular to the board surface	≥ 2.5 N/mm ²
Shearing in board surface	≥ 0.3 N/mm ²
Shearing perpendicular to the board surface	≥ 0.6 N/mm ²
Modulus Calculations (Permit No Z-9.1-434)	
E-modulus perpendicular to the board surface	≥ 3800 N/mm ²
E-modulus parallel to the board surface	≥ 3800 N/mm ²
E-modulus tension	≥ 3800 N/mm ²
E-modulus compression	≥ 3800 N/mm ²
Shearing-modulus G perpendicular to the board surface	≥ 1600 N/mm ²
Shearing-modulus G bending in the board surface	≥ 1600 N/mm ²
Additional Data	
Vapour Resistance	13
Thermal Conductivity	0.32 W/mk
Specific Heat Capacity	1.1 kJ/kgK
Brinell Hardness	30 N/mm ²
Sweeling after 24 hrs saturation	< 2%
Thermal co-efficient of expansion	0.001 %/K
Expansion/shrinkage on alteration of the relative humidity of 30% (20°C)	0.25 mm/m
Moisture content at 65% relative air humidity at 20°C air temperature	1.3%
Construction material according to DIN 4102 Part 1 (non-combustible)	A2
pH value	7-8



fermacell