

Aluminium Composite Panel



MULTIPANEL
MULTIPANEL
MULTIPANEL

INTERIOR
FIXING
SYSTEMS



...a **multitude** of applications

Alupanel can be successfully applied as a decorative material for walls, ceilings and column claddings whether for exterior or interior uses.

Due to outstanding rigidity, wide colour and gloss range, wash easiness and high resistance against moisture, salts, acids and cleaning detergents Alupanel is the perfect material for premises of different types; this includes Industrial facilities, offices, bathrooms etc. Alupanel is an absolutely ecologically safe material and can be used for residential premises of all types without exception.

We recommend using Alupanel for interior application. Our product is 3mm thick with 0,3mm aluminium layers with a polyester finish on the front side. However, depending on project specification 2 and 4 mm thick panels can also be used.

Due to Alupanel's composite structure it is very easy to fabricate. This means that interior application flat panels and panels with bended edges can be created with minimal cost and labour. To cut and route Alupanel you will need a little set of equipment: hand circular or jig saw and hand router. For more detailed information please refer to "Alupanel Fabrication Guide"

There are many ways to fix panels to walls. In this Guide we will describe only several of the most popular techniques. To achieve perfect cladding with plain surface and right angles it is necessary to compensate wall defects and tolerances. For this purposes we recommend to use fixing frame systems. There are two most popular materials for such frame systems; wooden bars and aluminium profiles. Wooden bars are the most universal framing material, though it has several disadvantages: wood can rot with time especially in wet conditions; also pests can damage it making the frame unstable. Making the frame with aluminium profiles can guarantee easier installation and much more long lasting life of the whole system.

Panels can be fixed to a frame in a multitude of different ways; using rivets, self tapping screws, special glue or Velcro. When using clip-in or push-in aluminium frames, fixing is achieved due to special profile configuration. To fix the frame to a wall, anchor bolts and screws should be used, the choice of an anchor type all depends on the material of the wall and the system weight.

When providing interior cladding in premises with high moisture levels and a possibility of direct water contact, it is necessary to provide a proper hydro-insulation of the wall using special waterproof membranes. The bottom edge of the membrane should be fixed under the edge profile on the floor. All the panel connections and panel-frame connections should be insulated with sealant. It is also important to escape horizontal panels connections in wet areas to avoid water build up.

The main steps throughout installation are as follows:

Step 1. Inspection of the room and choosing fixing technique depending on the wall condition and project design.

Step 2. Measuring the room and making detailed drawings of the room, noting the situation of fixing profiles, defining estimated panels dimensions and choosing dimensions of Alupanel to be ordered.

Step 3. Preparation of the wall. For wet areas it is recommended to coat the wall with some form of water repellent to prevent possible damages to the wall in the future.

Step 4. For wet areas it is also recommended to put a waterproof membrane on to the wall and to fix it with either glue or mechanical fixings.

Step 5. Measure, cut and fix the wall profiles of the frame using anchor bolts or screws. As a rule, distance between profiles should not exceed 500mm to escape bending of the panel. All profiles should be fixed evenly and with right angles. It is also recommended to cut profiles using a circular saw and a level tube to make sure the frame remains even.

Step 6. Apply a sealant in places where panels will come in touch with the frame.

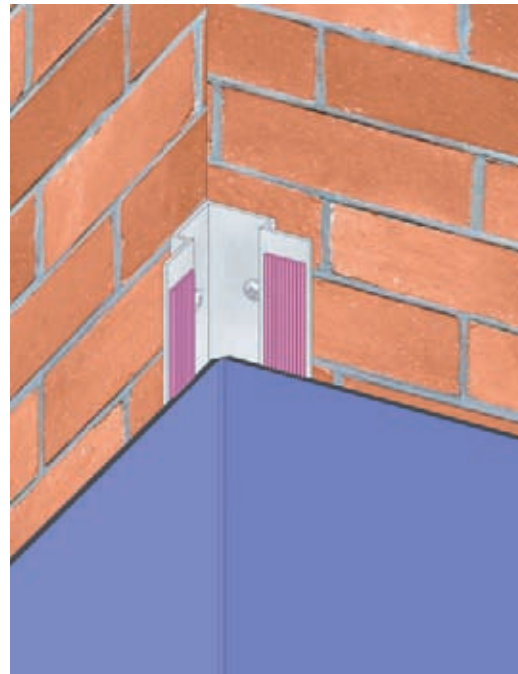
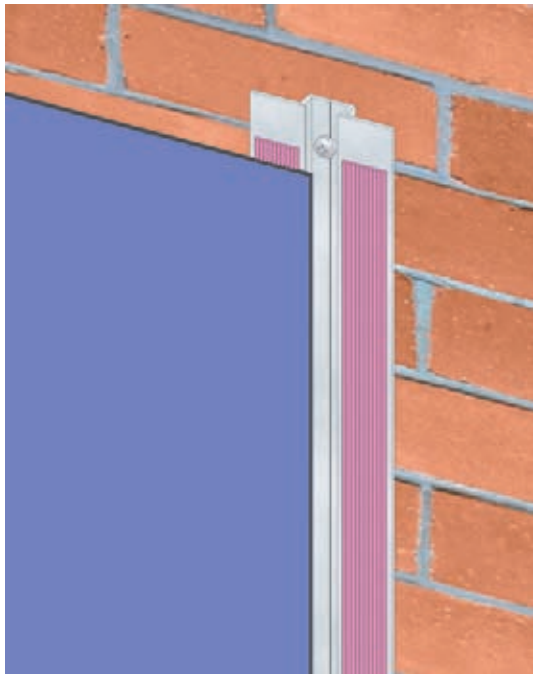
Step 7. Measure and cut the panels (route and bend if necessary) and fix the panels to the frame using mechanical or chemical fixings. Please note, that temperature deflection of Alupanel is 2,4mm /1m if the temperature changes by 100 oC. So, depending on temperature fluctuations in the room and panel dimensions you should choose a sufficient gap between panels. As a rule it should be between 1-3 mm. Also it is strongly recommended that all panels on one surface should be installed in the same direction according to arrows and Multipanel logo on the protective film. This is especially important for metallic colours.

Step 8. Add additional frame profiles (like in push-in system) to fix the panel.

Step 9. Carefully apply sealant in connections between panels and immediately take remains off.

Step 10. Peel the protective film off the panels.

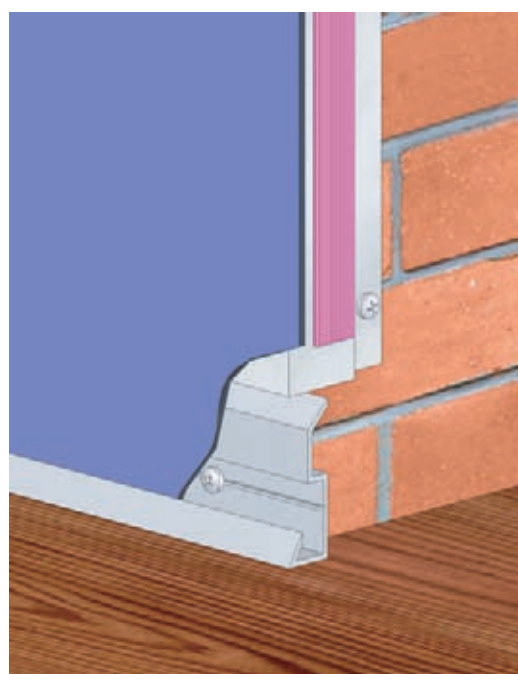
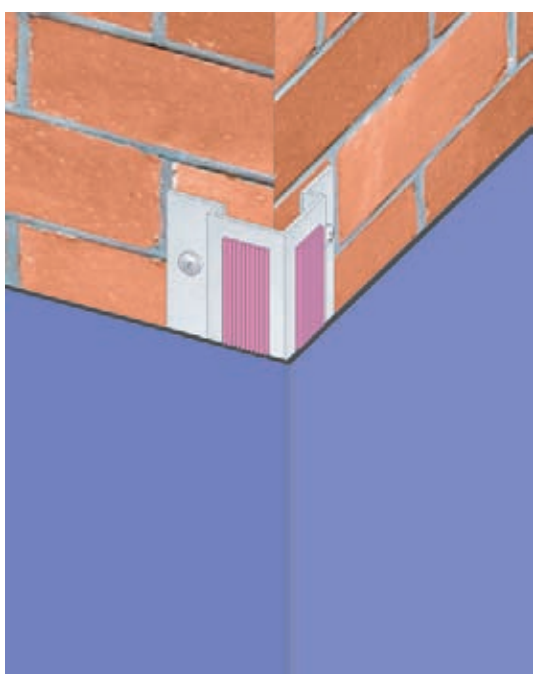
The lay-on profile system produced by Multipanel allows easy and convenient assembly and guarantees good drainage of any water which could penetrate the system through joints between panels.



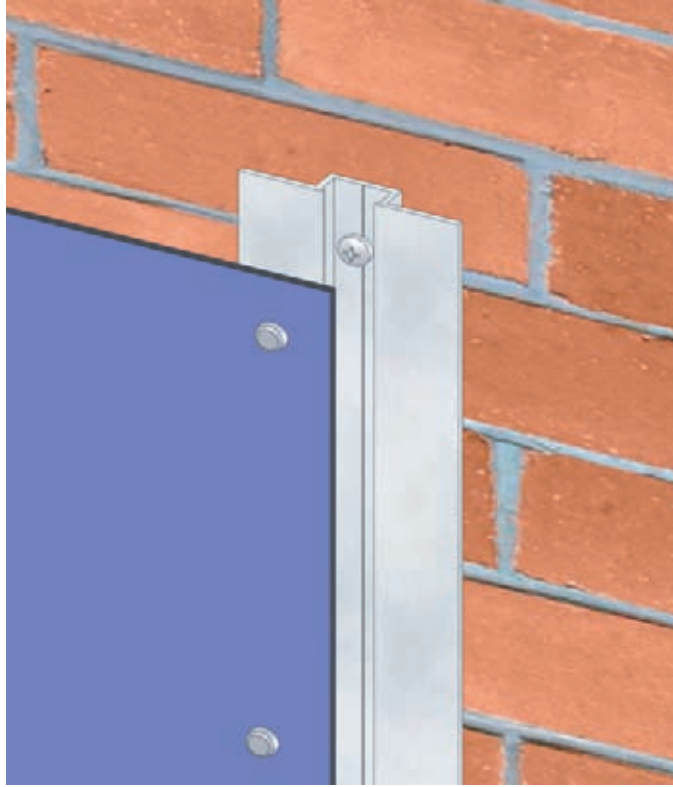
Glue can provide very reliable connections provided that surfaces of the panel and profile are clean and degreased.

We recommend Sika-Tack gluing system developed by Sika company. Although different glues can be successfully used.

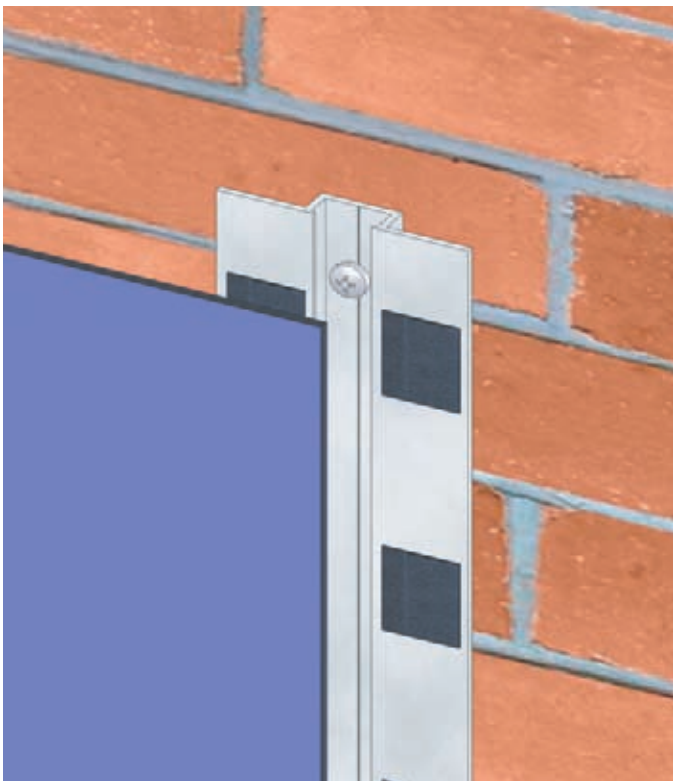
Always carefully read and follow the producer's instructions for quality gluing.



Flat panels can also be fixed by the lay-on system using self-tapping screws or rivets. It is necessary to pre-drill the holes in the panel with a drill bit which is 0,2mm diameter larger than that of the rivet or screw.

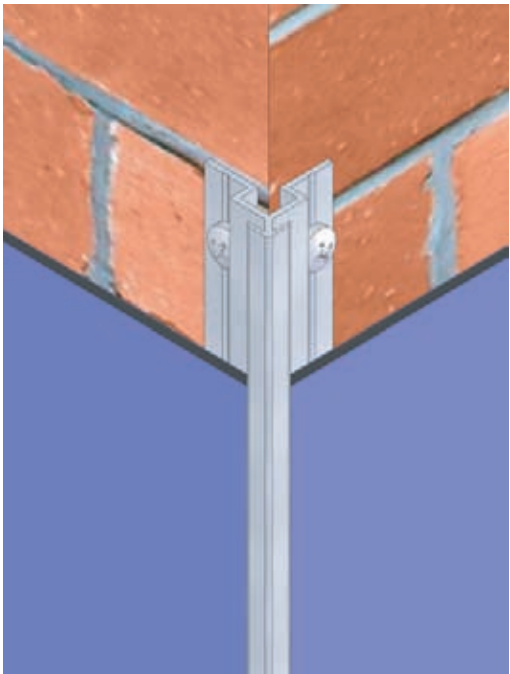
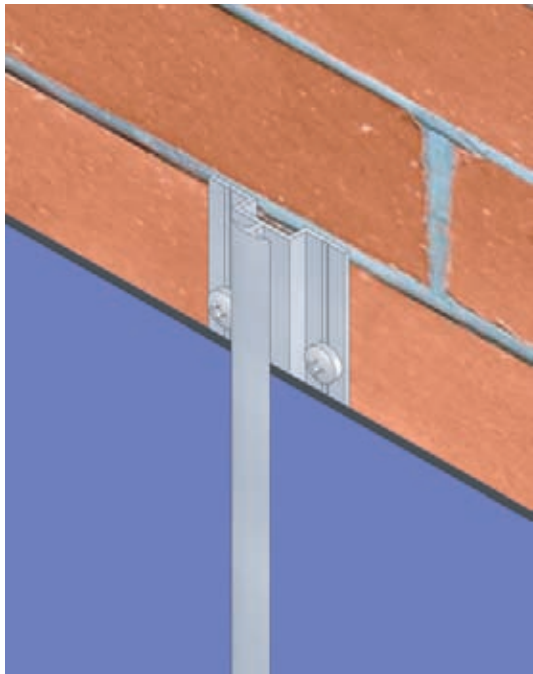


Using Velcro makes it very easy to dismount separate panels. So as a rule Velcro fixings should be used in places where easy access to the back wall is necessary. Velcro pieces or tapes should be fixed by glue to the profile and to the panel. Then the panel should be pressed to the frame profiles. The Panel can be easily dismounted again using suction cups.





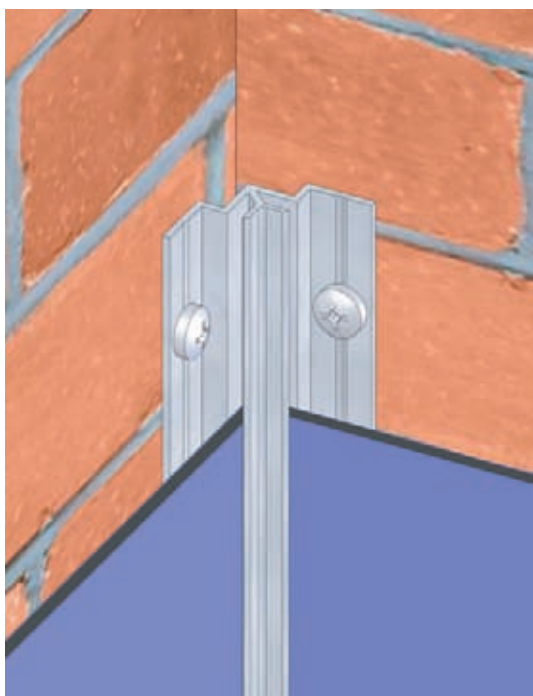
The Push-in fixing system provides the way to fix panels without additional fixing elements. Presently there are profiles for fixing 2mm, 3mm and 4 mm thick panels. All profiles are available in Alupanel standard colours.



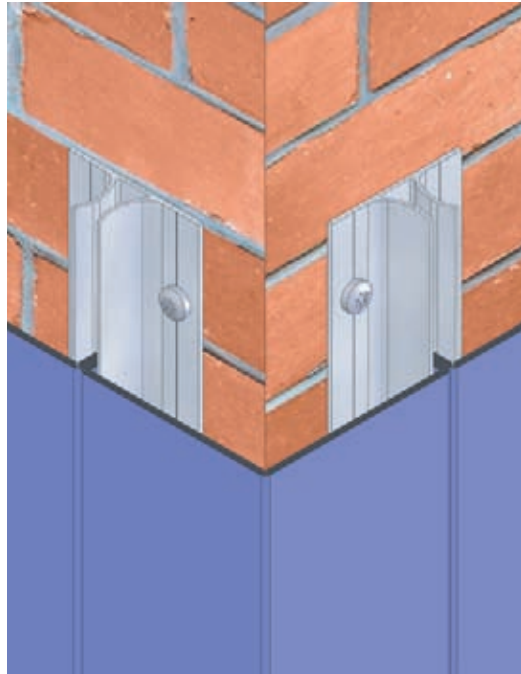
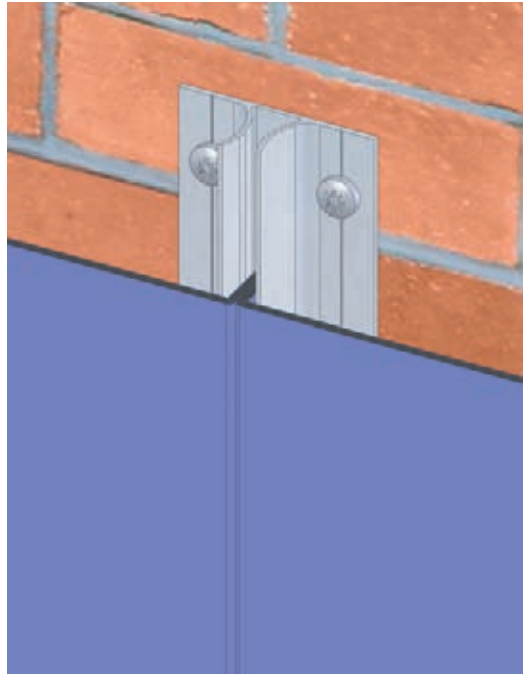
A different assembly technique should be used for this system:

1. First, fix the profile to the wall.
2. Put sealant in one of the profile's channels.
3. Insert Alupanel into the channel.
4. Take the next profile and put sealant in its channel.
5. Put the profile on the other side of Alupanel.
6. Press the profile and the Alupanel to the wall and fix the profile to the wall.

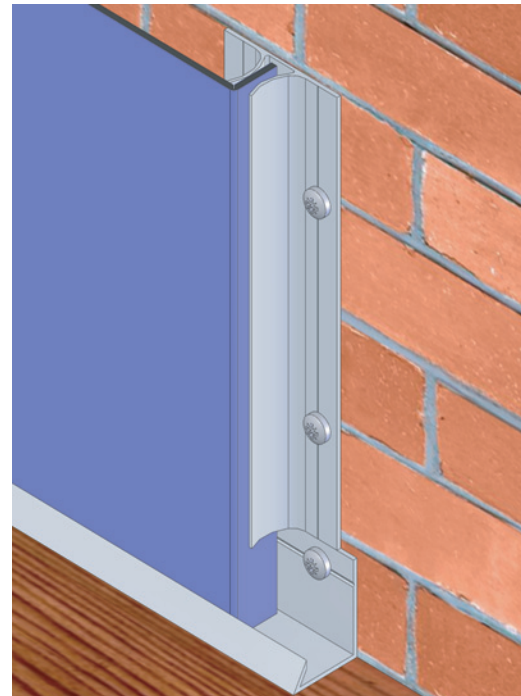
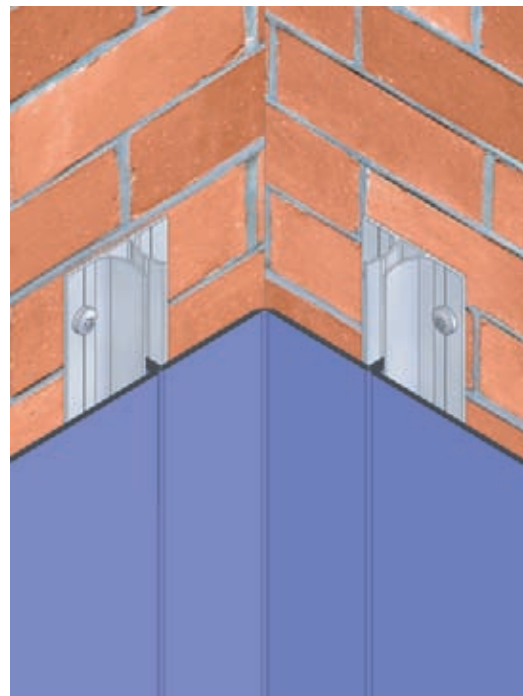
Next panels should be installed in the same way.



The clip-in system demands that Alupanel should be routed and banded making shelves of 20mm from each vertical side of the panel. In this system, fixing profiles should be installed very precisely so that panel comes strictly into its place.

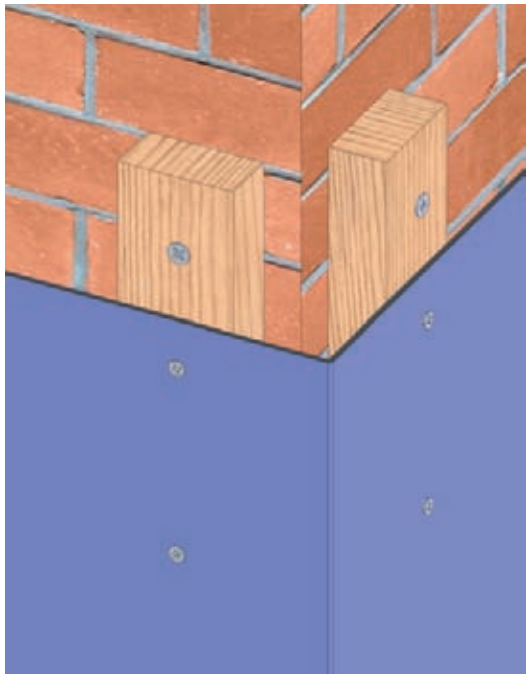
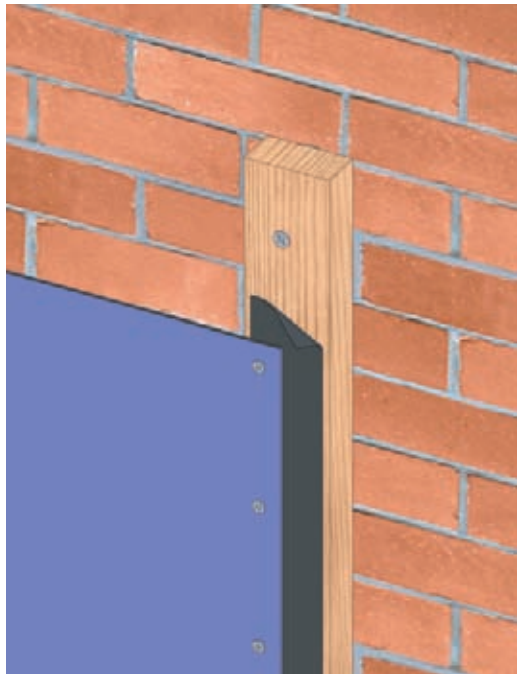


One of the advantages of clip-in system is that separate panels can be easily removed after installation. If easy removal is not necessary it is recommended that sealant should be applied inside of the clip-in profile before inserting the panels. This will give additional moisture insulation to the system and provide tighter fixing.

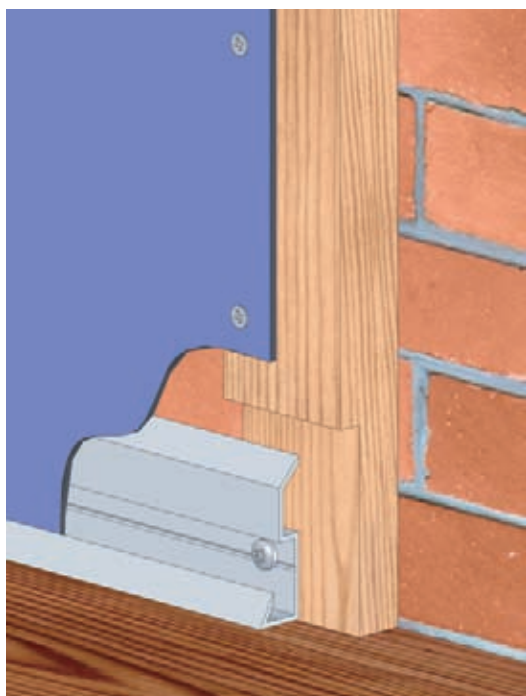
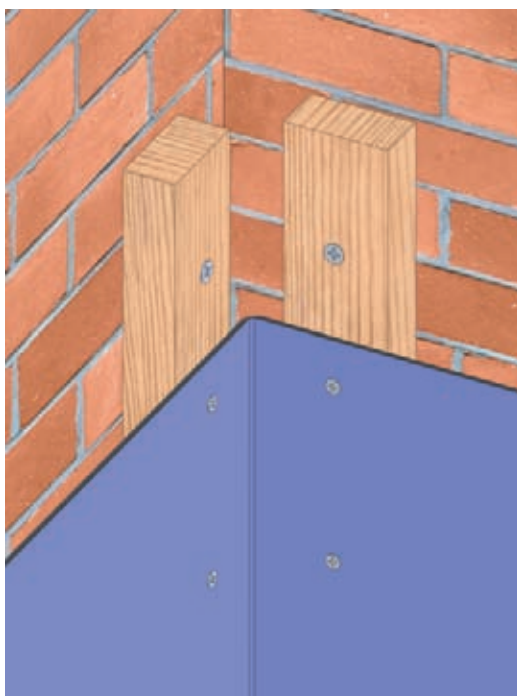




For a wooden frame, wooden bars with different dimensions can be used. We recommend that wooden bars should be treated with water repellent and anti pests' agents before use.


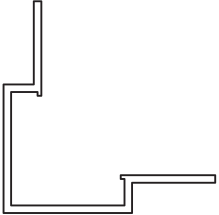
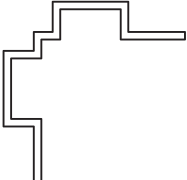

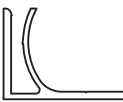
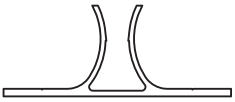







Panels can be fixed to a wooden frame by self tapping screws, glue and Velcro. Water proof tapes should be applied between the wooden bars and the panel to insulate panel joints in wet areas.



All aluminium profiles for interior fixing systems are produced of aluminium alloy 6061T6. Standard length is 2,5m. Other lengths can be also produced for special request.

Profiles specification

	W11	Lay-On profile
	W12	Lay-On profile, inner corner
	W13	Lay-On profile, outer corner
	W01	Edge profile
	W21	Single clip-in profile
	W22	Double clip-in profile
	W23	Double clip-in profile, inner corner
	W02	Edge profile for Clip-in System
	W31	Push-in Profile
	W32	Push-in profile, inner corner
	W33	Push-in profile, outer corner



Multipanel U.K. Ltd.

Multipanel U.K. Ltd

Unit 6, Oak Business Units
Thorverton Road
Matford
Exeter
Devon
EX2 8FS

Tel: 0044 (0)1392 823015
Fax: 0044 (0)1392 829502

Email: enquiries@multipaneluk.co.uk
www.multipaneluk.co.uk

Alupanel is available from the following stockist:

Aluminium Composite Panel

ALUPANEL
ALUPANEL
ALUPANEL