

Non illuminated

Aluminium Composite Sign trays.

Aluminium composite sign trays are manufactured from quality flat sheet materials using CNC routers and specific tooling.

Dibond- the original Aluminium Composite (first tier)

Reynobon- a high quality material (first tier)

Alcom- a good generic brand of aluminium composite (second tier)

Abond- a good generic brand of aluminium composite (second tier)

Alupanel- a reasonably good brand of aluminium composite (second tier).



We break our aluminium composites into two tiers. The first tier is the best quality and a more expensive option. Second tier composites are a good balance between price and quality.

Aluminium composite can be machined with CNC router and Waterjet.

Our standard prices are for second tier materials. If you require first tier materials you must specifically request these in your purchase order.



Thickness & foil

Aluminium composite products are manufactured in 3mm material only. Thicker composites are available subject to lead time and additional cost.

Our standard aluminium composite foil thickness in 0.3mm. This is at the thicker end of the range available. Foil thicknesses less than 0.3mm are NOT suitable for sign tray applications.



Colouration- batches

Aluminium Composite sheets may vary slightly in colour between batches. If you require multiple sheets of composite we recommend you order in production sized batches.

Colours

Aluminium Composite sheets are manufactured using the RAL colour reference system.

Solid colours are manufactured with a Gloss face and a Matt face. Please indicate clearly whether you require a Gloss or Matt finish to your flat cut composite products.

Metallic colours will be machined in one direction only to preserve the grain.

White composite can be flood coated in any cast vinyl colour.

Aluminium composite colours			
White (GS) (RAL 9016)	Black (GS) (RAL 9005)	Ultra Blue (GS) (RAL 5002)	Navy (GS) (RAL 5022)
Red (GS) (RAL 3020)	Green (GS) (RAL 6024)	BRG (GS) (RAL 6005)	Yellow (GS) (RAL 1023)
Brushed Bronze (RAL n/a)	Flat Silver (RAL 9006)	Brushed Steel (RAL n/a)	Brushed Gold (RAL n/a)
		Screen colours are a guide only.	
Ivory (GS) (RAL 1015)	Chrome* (RAL n/a)		

Sign tray sizes.

When calculating the size of your sign tray you **MUST** ensure that you keep within the sheet dimensions;

2400 x 1220mm or 3050 x 1500mm in colours and metallic colours. White composite is available up to 4000 x 2000mm in sheet size.

When calculating the amount of material required to make your sign tray you **MUST** not forget to add the return dimension to the panel dimension.

Example- a 2000 x 600mm sign tray with 50mm returns requires a total of 2100 x 700mm of aluminium composite to make (panel size PLUS 50mm on each side).

If you specify very deep sign tray panels- more than 8-900mm we recommend that you opt for integrated panel stiffeners- these will prevent bowing of the panel and add rigidity.

The following letter fitting systems can be utilised with sign trays

Letter fixings- cup and peg

Letter fixings are available in three sizes/ diameters. Your lettering will be fitted with fixings whose size is most compatible with the stroke width.

The **minimum stroke width you can use is 13mm**. If your stroke width is less than 13mm there is insufficient area to mount any cup and peg fixing- the peg part of the fixing will overhang your letters. You can outline your original lettering until the 13mm minimum is achieved.

All letter fixings are bonded to the rear of each character using acrylic adhesive. The adhesive used is sourced direct from the manufacturer with particular attention paid to batch dates. Letter fixings are placed in a random pattern. Uniform fixing patterns can be provided on request subject to a small additional charge. Uniform fixing placement allows replacement letters to mount direct onto the cup part of the fixing without the need for re-drilling.

Computer plotted paper layout template(s) are supplied along with instructions as to how to mark and use the template(s)

Fixing screws and rawplugs are not supplied unless specifically requested.



Red= fixing diameter

Blue= standoff distance

Letter fixings- VHB tape (surface mounting)

If you require letters which “stick” in place or you need letters which are too small for cup and peg fixings we will supply letters pre-installed with VHB* double sided tape pads.

The standard type of VHB tape we supply is 19mm wide, 0.5mm thick and clear in colour.

This type of VHB* tape is an industrial product which is suitable for interior and exterior uses.

It is imperative that the fixing surface you apply any VHB mounted letters to is smooth and has been thoroughly cleaned with Isopropyl Alcohol (IPA). Once wiped with IPA you must allow the solvent to evaporate before attempting to mount your letters.

This type of lettering is supplied with a self adhesive template.

You must NOT use any other cleaning agent. IPA is the ONLY suitable product for use with VHB tapes.

* VHB means Very High Bond



Letter fixings- threaded studs & plates

Letters can be supplied pre fitted with M6 base plates. These plates feature an M6 nut which allows an M6 threaded rod to be wound into the base plate.

The base plates are bonded to the rear of each letter using a two part acrylic adhesive.

These fixings are supplied with 120mm long M6 studding and a computer drawn paper template.

To mount this type of lettering you must ensure that the fixings holes you drill are blown out properly. We recommend the use of a chemical resin system (ChemFix).

Base plates can be trimmed to reduce base plate diameter.

This type of fixing system is NOT suitable for timber surfaces or surfaces with voids behind.



You may purchase letter fixings, adhesives and VHB tapes as loose items.

All three fixing systems can be employed with sign trays and are provided pre installed.

Examples of letter fixings on sign trays

The diagrams opposite show how the various letter fixing methods work in conjunction with sign tray products.

Option A

This shows cup and peg fixings. The pegs are bonded to the rear of each character. The cups are screwed into the face of the sign tray. The stand off distance between letter and sign tray is depended on the size of fixing used (see previous pages for details)

Option B

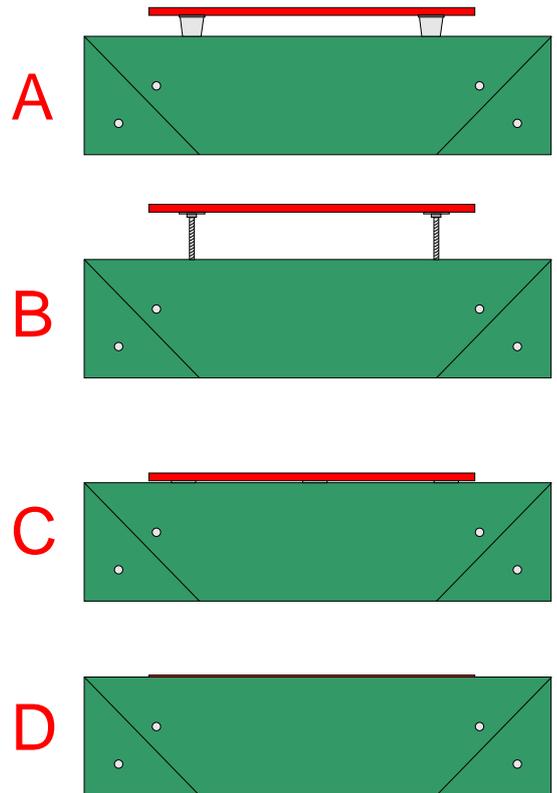
This shows M6 threaded rod mountings. The stand off distance for this option can be set to any distance you require. Minimum is 10mm.

Option C

This shows lettering which is bonded directly to the surface of the sign tray panel using VHB tape. The lettering will sit proud of the sign surface at whatever thickness of letter material has been used PLUS the thickness of the VHB tape.

Option D

This is a simple flush fitted self adhesive letter. (we can supply vinyl lettered/ logo sign trays or you can create these elements and apply them yourself).



Lettering materials available

Aluminium composite sign trays can be supplied blank ready for application of whatever lettering/ logo product you wish to use.

If you wish us to supply a finished product we can supply you with sign trays pre installed with;

Coloured acrylic (Perspex, Plexiglas or Repsol) in thicknesses of 3, 5 and 8mm.

Coloured and metal effect Aluminium composite letters in 3mm thickness

Stainless Steel lettering/ logos in 1.2, 2 or 3mm thicknesses. Built up stainless letters and logos can be mounted with options A or B only.

Moulded acrylic lettering

The above options can be mounted with ANY of the fixing methods previously mentioned.



Fixing rails

Aluminium Composite sign trays are recommended to be fitted using aluminium angle fixing rails.

If you wish us to supply you with a fixing rail kit you must explicitly request this option.

Fixing rails are supplied at an additional cost to the actual sign tray.

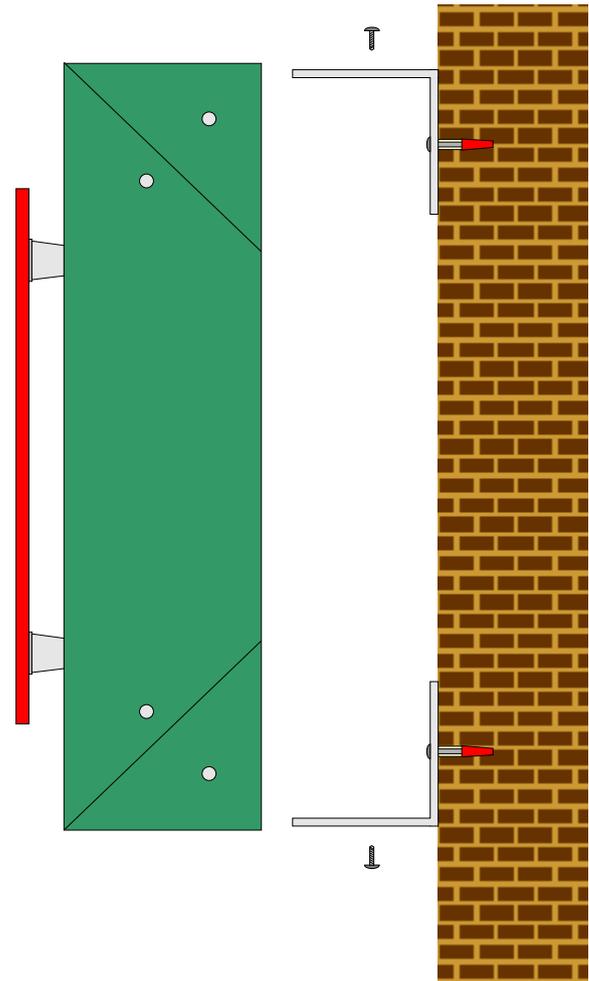
installing the fixing rails is a simple task. you fix the top rail in position, measure the internal dimension of the sign tray(s) and fix the bottom rail so that the sign tray sleeves tightly over both rails.

You must secure the sign tray from the top and bottom at intervals of around 5- 600mm. Sign trays are supplied undrilled. This allows you to position the fixing screws in the best location relative to your specific installation.

When installing sign trays it is your responsibility to ensure that a safe, secure solution is achieved.

If you do not request a fixing rail kit it is your responsibility to manufacture a suitable fixing solution which is safe and durable.

Under no circumstances make a fixing system from untreated softwood. If you must use timber use a pressure treated product. Aluminium angle is the right fixing system and we strongly recommend you use nothing else.

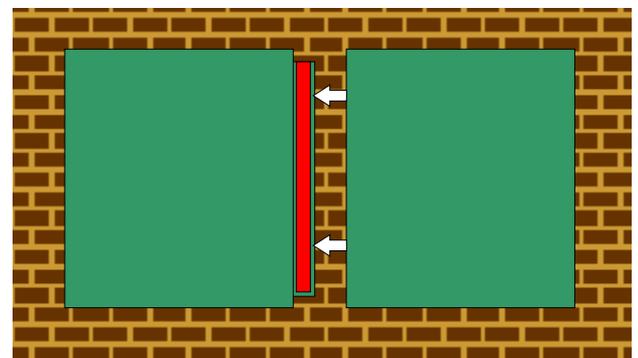


Joining panels

Multiple panels are fixed in the same manner as single panels. Start from one side of the fixing rails and work across.

Panels are secured to each other using joining tabs which are supplied pre fitted with VHB tape.

Joining tabs can easily be damaged during transit so they are supplied loose.



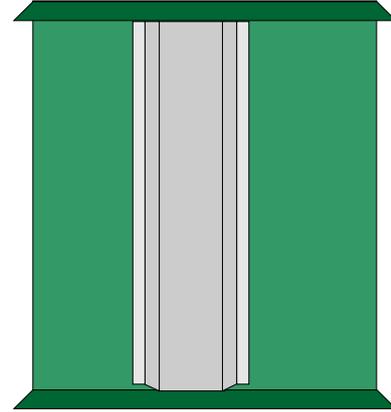
Panel stiffeners

Panel stiffeners are recommended on sign trays deeper than 8- 900mm.

Stiffeners are manufactured from aluminium composite in a special shape. These are bonded to the rear of each panel. The number of stiffeners used depends upon the length of sign tray required.

Stiffeners are available at a small extra charge.

If you opt to skip installation of panel stiffeners you may find your sign tray sags or bows under it's own weight.

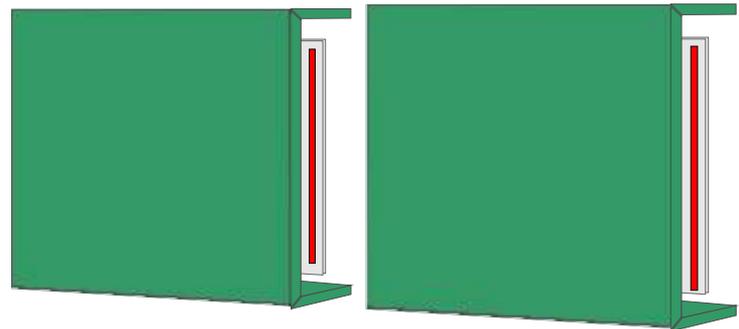


Tray joints.

Score lines in aluminium composite sign trays are bonded using a flexible adhesive system. This system allows the panels to sleeve over minor discrepancies in your fixing rail installation.

By design the returns on your sign tray will flex and give a little. This is normal and not a manufacturing fault.

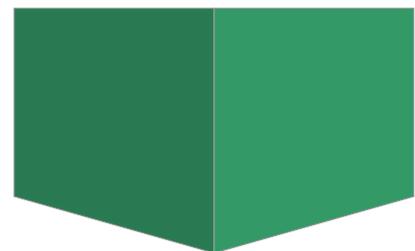
Locking the returns into place with a structural adhesive prevents minor adjustments to the returns during fitting.



Aluminium composite sign trays only achieve full rigidity when fitted to fixing rails.

Corner pieces

If your sign tray project involves “wrapping” around a building we can manufacture corner pieces which will give a smooth transition from one fascia to the other. To make accurate corners we need to know the angle of the building which we are to follow.



Two tone trays and interlocking designs

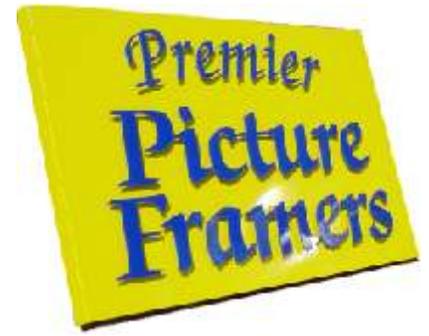
Aluminium composite sign trays can be made from two or more colours. These can have straight vertical joints or joints in any design.

Shields and interlocking panels can be manufactured.



Ordering

When you place your order we will program your job into our schedules. We aim to deliver aluminium composite sign tray projects as quickly as possible. Standard colours should be available ex stock from our suppliers. Custom colours and projects which require large quantities of aluminium composite sheet may be subject to a delay whilst our suppliers arrange groupage of stock.



When specifying your order the onus is on you to supply accurate, detailed information as to the fixing system you require and the colour you require. Whilst we will endeavour to advise you on all aspects of this product we are not able to carry out on site surveys or technical investigations on your behalf.

Sign trays can be supplied as fully assembled items delivered in palletised crates. Alternatively we can supply this product in a flat pack kit of parts. All you need do is fold up the returns, rivet the corner plats into position and apply the flexible adhesive (fits in standard silicone gun). All parts are supplied ready for you to assemble.

Manufacturing from supplied files.

If you require specific typefaces or logo shapes you need to supply us with a “clean” vector based file in .DXF or .AI/ EPS format. If you are working from an Apple Mac platform please ensure your files are exported in PC compatible formats.

If you are using free typefaces sourced from the internet please check the quality of the vector lines. Free typefaces are notorious for poor quality and irregular line shape.

Our production equipment machines EXACTLY what your file tells it to. Jagged lines and stepped curves will be reproduced if they pre-exist in your files.

For Corel users we can accept native .CDR files in versions up to 12. Please remember to convert all text to curves (shortcut key CTRL+Q).

Manufacturing from supplied specifications.

We manufacture to the specifications provided to us. Please ensure that the specification you provide contains sufficient information so as to clearly explain exactly what you require.

If after manufacture you discover that the original specification is not fit for purpose this does not constitute grounds for free replacement goods, reworking or an entitlement to a full refund. Your specification represents the goods you require. It is in your own interest to ensure you correctly specify each job you undertake.

This document is for guidance only. All orders accepted subject to our standard terms and conditions. See www.smart-group.co.uk for more information.