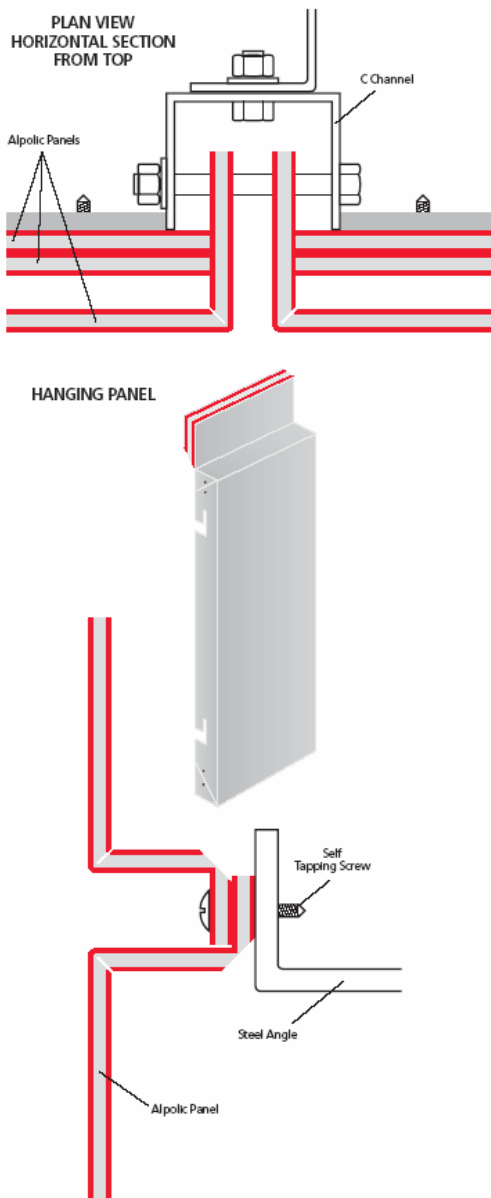


## INSTALLATION SYSTEMS

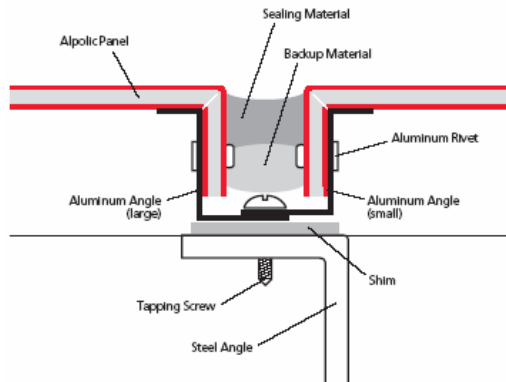
### Attachment Concepts

The following details are provided for conceptual purposes only. These are not the only methods that can be used to attach ALPOLIC®/fr, nor can they be used generically without consideration for each individual application. Good design for thermal expansion should influence the choice of details used.

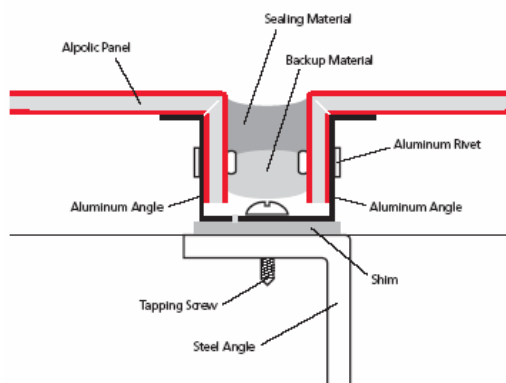
#### Hanging Joint System



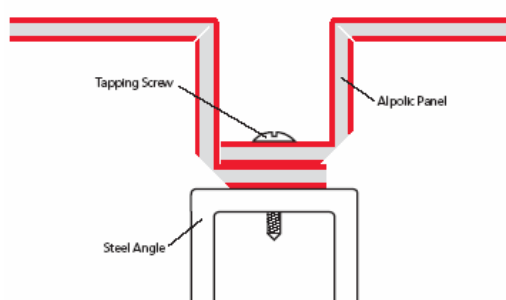
#### Route & Return Stacked Clip



#### Route & Return Staggered Clip



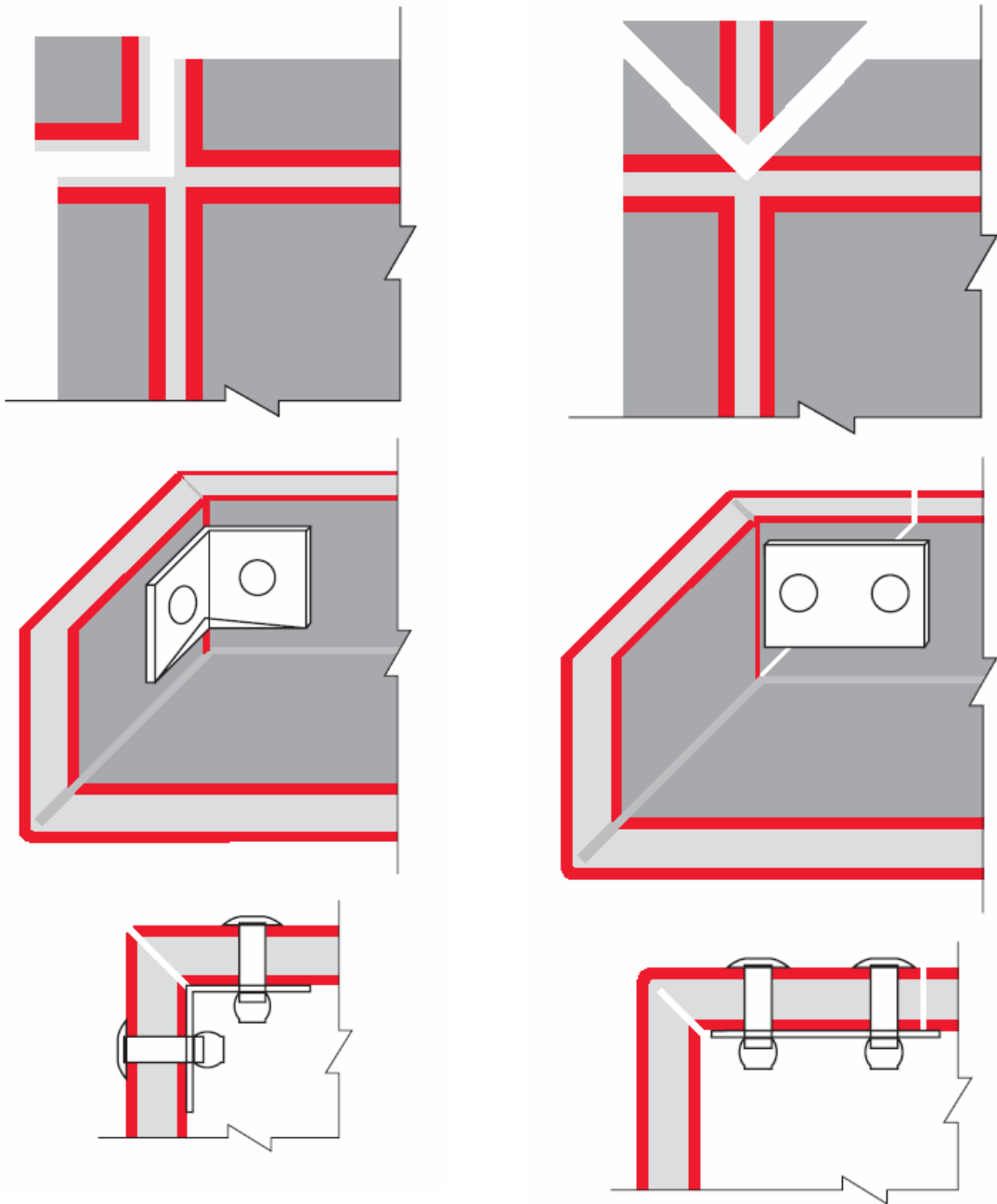
#### Double Route & Return



*These details are for general information purposes only and do not represent installation instructions*

## INSTALLATION SYSTEMS

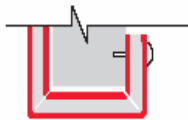
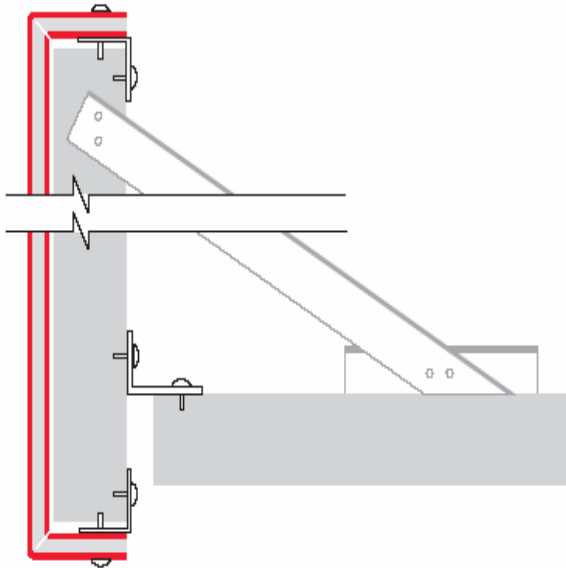
### Corner Fabrication Details



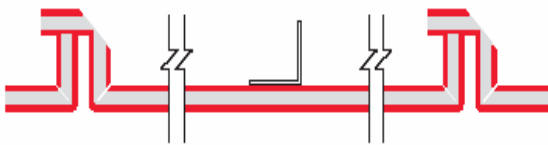
*These details are for general information purposes only and do not represent installation instructions*

## INSTALLATION SYSTEMS

### Canopy Fascia Details



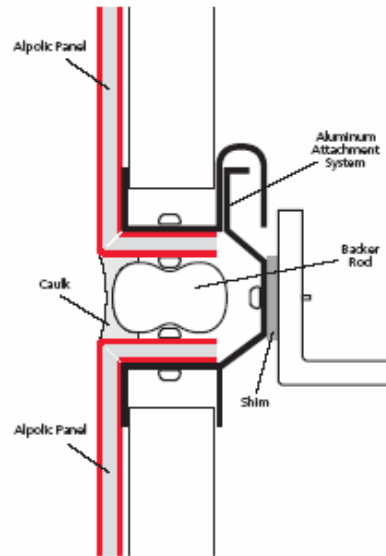
### Canopy Joint Detail



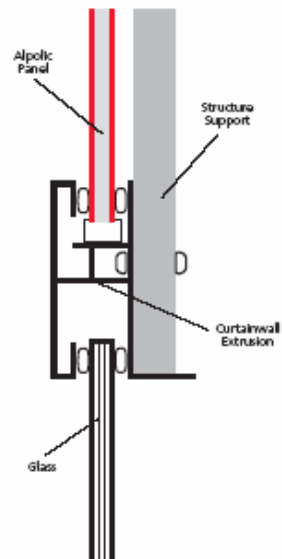
### Alternate Canopy Joint Detail



### Route and Return Wet Joint



### Glazed-in System



*These details are for general information purposes only and do not represent installation instructions*

## INSTALLATION SYSTEMS

### Joining

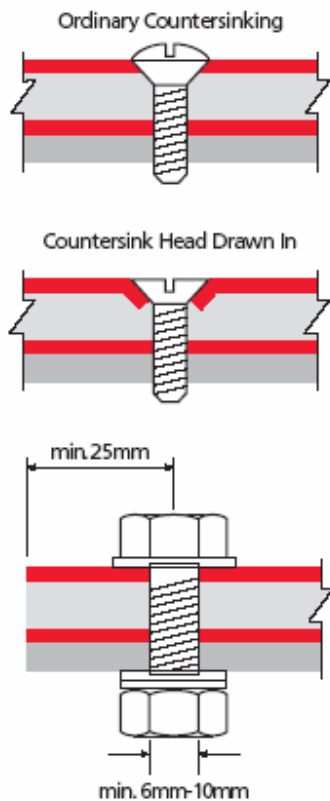
Typical methods of joining ALPOLIC®/fr are the use of threaded fasteners and rivets. Proper consideration should be given to the thermal expansion characteristics of ALPOLIC®/fr.

Use the general guidelines listed below when other elements come in direct contact with the surface of ALPOLIC®/fr.

When attaching copper, iron, brass, raw steel and bronze, consideration needs to be given to possible corrosion of joining surface due to electrolysis of dissimilar materials. If these materials must be used, make sure that a protective coating or separation exists between the two surfaces.

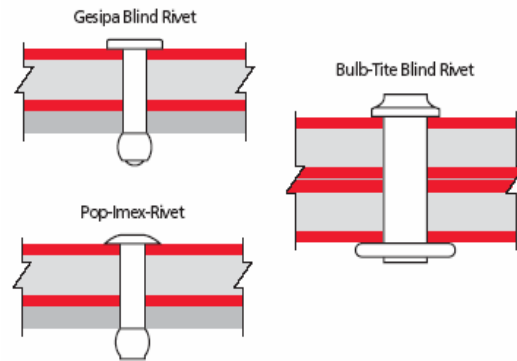
### Threaded Fasteners

When using threaded fasteners, caution should be taken not to over tighten the fastener. The examples below show different threaded fastening methods.



### Rivets

Rivets can be used to fasten ALPOLIC®/fr panels together or to aluminium extrusion profiles. Rivets are especially suitable for fastening when vibration is likely. Coloured plastic concealment caps can be used to conceal exposed rivet heads.

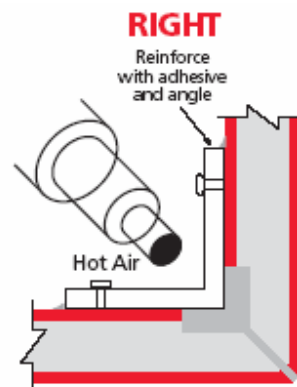


### Hot Air Welding

This process is used to join ALPOLIC®/fr panels through a process of welding the polyethylene core.

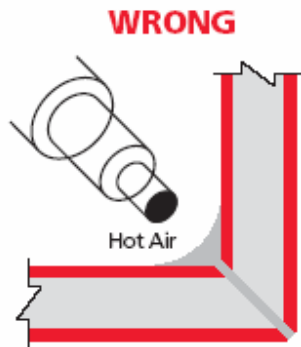
### Edge Preparation

ALPOLIC®/fr parts should have edges beveled to the corresponding angle of the finished part and allowing an exposed surface on the welded side. A low density polyethelene rod should be used in conjunction with a high speed hot air welder equipped with a pressing apparatus.



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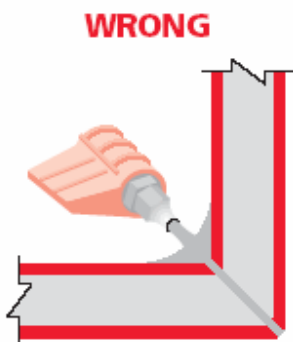
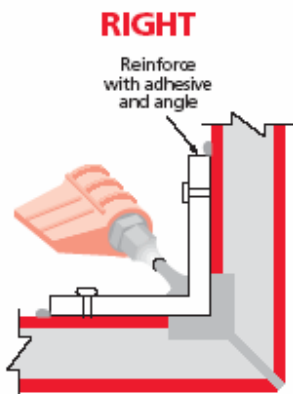
## INSTALLATION SYSTEMS



### Hot Melt

When using Hot Melt systems to bond ALPOLIC®/fr, be sure that the surfaces to be bonded have been abraded and cleaned.

Hot Melt adhesives designed for bonding aluminum or metals are recommended. To insure the maximum bending, please consult the adhesive manufacturer.



### Off-line Coating

ALPOLIC®/fr can be off-line coated, if necessary. It is advisable to follow instructions as specified by the manufacturer of any paints to be used.

*For off-line coating, observe the following guidelines:*

- Surface should be lightly abraded to provide a better coating surface. Surface should then be cleaned of all contaminants i.e. dust, dirt and oil etc. A soft cloth with a non-petroleum based solvent (e.g. rubbing alcohol) should be used to clean the surface area.
- Curing should be done at room temperature since temperatures above 80°C can cause deformation of the ALPOLIC®/fr panel.

### Screen Printing

Printing can be done on ALPOLIC®/fr with an epoxy base or urethane base two-part type ink/paint.

In printing, use polyester-coated or anodize-finished ALPOLIC®/fr

When selecting an ink, confirm its weatherability and adhesion with the ink manufacturer. It is recommended to test the ink's adhesion on the surface of the ALPOLIC®/fr before production.

*For printing on ALPOLIC®/fr observe the following guidelines:*

- Remove all dust and dirt on the surface of ALPOLIC®/fr. Oily dirt causes splintering, splitting, or other defects of the paint. It must be completely removed with a soft cloth dipped in alcohol, N-hexane, etc.
- If storing or drying is not proper, the adhesion or other performance may be adversely affected. Therefore, observe the storing condition of each paint as specified by the manufacturer. Since storing in high temperature may cause deformation, keeping the storing temperature under 80°C and hold horizontally.

*These details are for general information purposes only and do not represent installation instructions*

## INSTALLATION SYSTEMS

### Masking

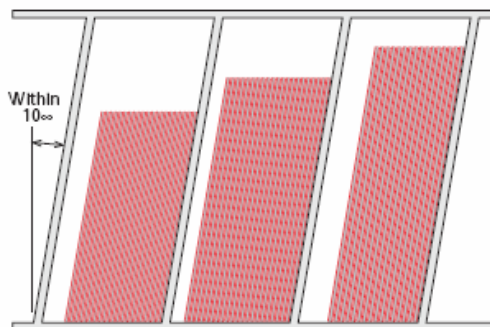
ALPOLIC®/fr comes with a factory applied protective masking film which should be removed after fabrication.

### Storage

ALPOLIC®/fr is packed in wooden crates and can usually be stacked up to four crates high. When storing unpacked ALPOLIC®/fr observe the following guidelines:

- To prevent warping or bending, place it horizontally on pallet or other stand.
- Avoid stacking ALPOLIC®/fr of different sizes together, as the surface or panel can be scratched by the edges of the smaller pieces.
- Preferably, store them by size in racks.
- In storing them by leaning against the rack as shown below, lay a rubber mat underneath and lean the ALPOLIC®/fr against the fixed back-up material.

RACKING SYSTEM



### General precautions on fabrication & installation (Important!)

#### Weather-ability of protective film

The protective film on ALPOLIC®/fr consists of two polyethylene layers of white and black. Do not peel off the protective film during fabrication and installation to protect the surface from scratching and soiling. Under normal weather conditions, the protective film will withstand six months' exposure without losing any of its original peel-off characteristics or causing stains or other

damages. However, peel off the protective film as soon as possible after completion.

#### Slight color difference due to coating direction

*In the cases of our Metallic Colors, Sparkling Colors and Stone Series, always install panels in the same direction as marked on the protective film. Slight color differences will be noticeable if you install panels in different directions. In our Solid Colors, any color difference due to coating direction is negligible.*

#### Gloss increase due to plasticizer

*Do not stick, put or apply PVC tapes, polyurethane sealant and modified Silicone sealant onto our protective film. The plasticizer contained in these materials can penetrate the protective film and cause a gloss change in the coating.*

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