

Attaching rigid panels

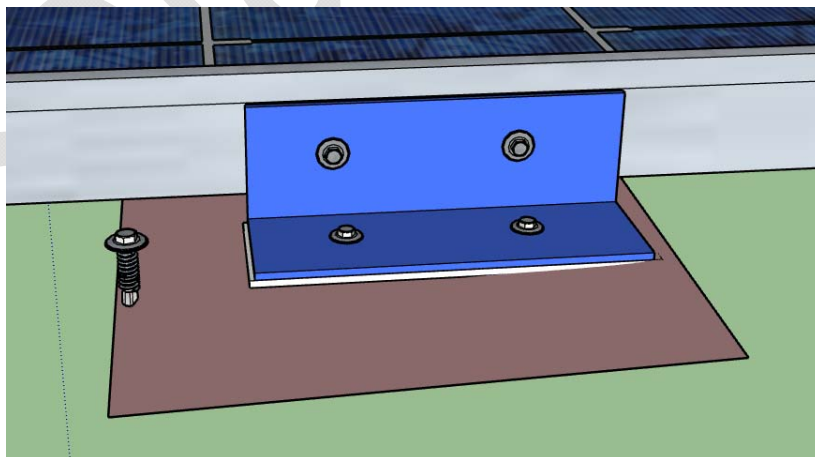
Rigid panels must be attached using brackets that do not apply any stress to the panel. Some people just rely on adhesive to secure rigid panels – however this is not always successful. Our instruction is to use a combination of adhesive and screws. The Australian and New Zealand standard AS5033 requires the following: “Strength of attachment method and ability to withstand forces likely to be present on a vehicle under normal operation and under emergency braking conditions or in a collision or accident.”

Screws should be selected to suit the application environment.

The bracket shown is aluminium – trade retailers will normally cut the aluminium to the required length of at least 150mm. The instruction applies regardless of whether aluminium or the common white ABS plastic brackets are used. ABS corner brackets can also be used on smaller panels or a combination of corner and the shorter side brackets can be used.

On large panels, lengthwise, the brackets should be 10 to 20% of the length in from the corners of the panel. On the short sides of the panel, brackets should be around 1-cell in from the corners.

1. use marine Sikaflex or MS polymer between the brackets and the side of the panel and ensure that the brackets are tek-screwed tightly to the side of the panel.
2. Use marine Sikaflex or MS polymer between the bracket and the mounting surface. The adhesive must be allowed to cure so that it “takes-up” all the unevenness between the bracket and the mounting surface – otherwise you can create stress in the mounting as you tighten the tek screws.
3. Drill clearance holes in the bracket for the tek screws. Fill the hole with marine Sikaflex or MS polymer and drive the tek screw into the mounting surface. Only drive the tek screw in as far as needed so that there is a gap of around 1mm (filled with adhesive) between the underside of the head of the tek screw and the bracket.



Notes: the roof surface may need strengthening and or alternative fasteners used such as toggle screws so that the requirements of AS5033 can be met.

Tek and Sikaflex are trade-marked names.