## Translations: Chauffe eau solaire/38/en

To create a greenhouse effect and limit convection between the grille and the outside, the panels will be closed with glass. Glassmakers get rid of old windows, especially double-glazing, by asking them nicely they can be recovered free of charge. Ideally, a glass thickness of 4mm is required for vertical panels and 5mm for inclined panels, more subject to hail and bad weather. It is not necessary to have thicker glasses, it reduces their performance.

- Recover windows, to prevent them from breaking move the windows and glasses on the edge and not flat. To work with glass you must protect yourself: long sleeves, gloves and glasses.
- Remove the glazing beads, slide a chisel or screwdriver between the window frame and the glazing bead on the inside of the window, tap with a hammer to separate the two and then remove the glazing bead by hand. Do the same for the other sides.
- The glazing is wedged on the sides. Remove the shims with a plier. By moving the window frame slightly away from the glass, it is easier to remove the shims, be careful not to force the glass too much as this may cause it to burst.
- Recover the glass or double glazing
- If it is double glazing, separate the two panes. Slide a cutter blade into the seal against the glass. Work standing upright, with the vertical glass on battens, moving the cutter from top to bottom. Swivel the glass to always work in this position, from top to bottom. I broke three windows while working flat and none vertical! Remove the seal in the same way for the second pane of double glazing
- Ideally it is necessary to work with windows which do not have anti-UV treatment, which limits the entry of the rays in the panel. Windows with UV treatment have a slight reflection. If you want to compare two panes, put them side by side in front of a white background, if it is tinted on one side, there is anti-UV treatment.
- To clean the remaining seal on the glass, place it flat on a table and pass a cutter blade at 45°. A rag with a little acetone will remove the last remains.
- Measure the width of the frame, between the two cleats, remove 1cm, and cut the glass to this measure. The glass is 1/2cm shorter on each side, so that it does not break when the panel is placed on the edge. To cut a window, trace with a diamond the cutting line then wipe a cloth with petrol. Position the cutting line on the edge of the table, firmly grasp the edge to be broken and snap it in a downward movement. The cut is most obvious when the part to be removed is at least 10 cm and is not too long. If you must cut a glass in length and width it is better to start with the width then the length.
- Cut the number of panes required to completely cover the panel.
- Clean the windows carefully, especially the side that will be inside the panel because you will not be able to do it once closed.
- Make a bead of black PU putty on the frame and carefully place the glasses one by one without pressing them, do not crush the beads. To avoid condensation, the panels should not be completely sealed.
- Pass the sander with a lamella disc over the edge of the glass to break the angle and not cut yourself.
- Make a black PU seal between the edge of the frame and the glass and smooth it with a finger soaked in soapy water.
- Make a black PU seal between the glasses and smooth it in the same way.
- The solar thermal panel is finished, well done, just let it dry and install.