

How to Guide to reduce wind driven rain water ingress entering through sliding windows and doors

October 2018

Please see CTS summary report on damage caused to homes from wind driven rain water ingress

[*North Queensland Study into Water Damage from Cyclones*](#)

www.jcu.edu.au/cyclone-testing-station

LIMITATIONS OF THE GUIDE

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This guide may not be published except in full unless publication of an abstract includes a statement directing the reader to the full guide.

STEP-BY-STEP GUIDE

Necessary materials: Duct tape and new clean plastic film. The film used for the purpose of this guide was clear and thin to allow observation of the water ingress. This is not necessary, and ideally thick heavy-duty plastic should be used as it will be more resistant and less likely to crease during the installation process. Important note: **Stay clear of windows during a cyclone!**

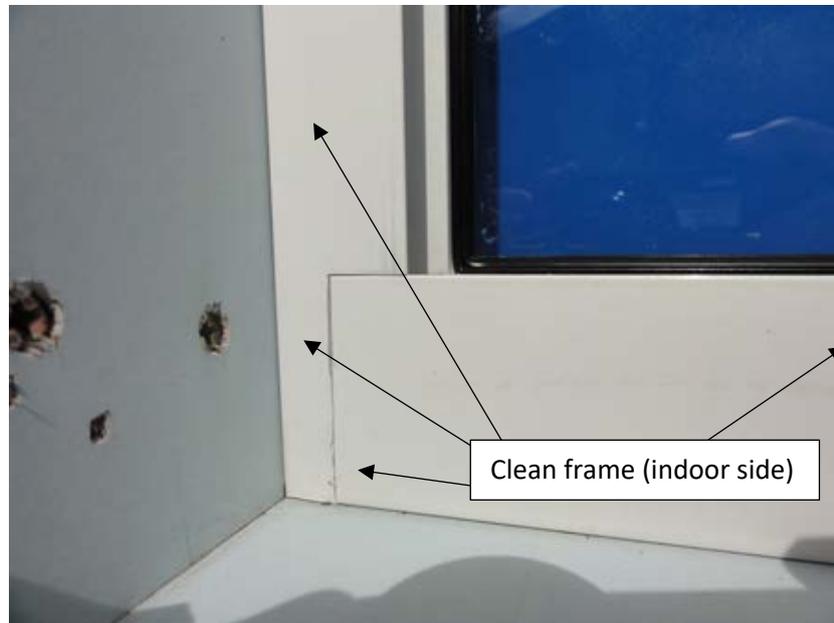
Step 1

Ensure the window is securely closed and locked.



Step 2

Ensure the **indoor side** of the window frames are clean, dry and free of dust, grease or any other contaminants.



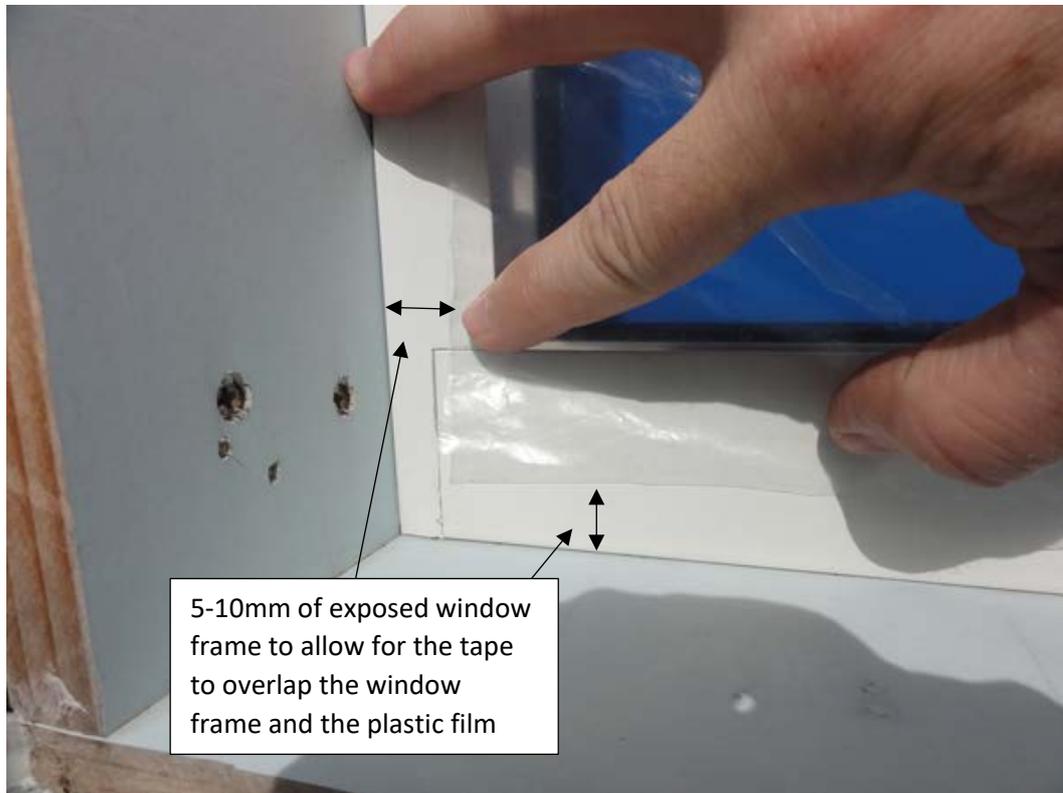
Step 3

Pre-cut the plastic film to approximately 400 mm in height with a width 10 to 20 mm less than the actual window – this is to allow for 5 to 10mm of the window frame to be exposed behind the plastic film. This will ensure that the tape overlaps the plastic film and the window.



Step 4

Place the plastic film over the bottom of the window frame (**indoor**) with 5-10 mm of the frame exposed under the film. This will allow the duct tape to properly overlap the film and the window frame.



Step 5

Secure the film in place with duct tape covering both the exposed window frame and plastic film. Ensure there is no crease in the plastic film or tape and that there is no airline where the tape overlaps as this would cause leaks! Place some pieces of tape to attach the top of the plastic film to the glass. **Do not fully tape the top of the plastic film as the plastic film could become pressurised and peel off the window.**



The following photographs show the efficiency of the plastic film in containing the water during a simulated cyclone wind gust. Rain was simulated by spraying water on the window. With the plastic film set-up, the water is contained and returns outdoors through the window weep holes after the wind gust instead of causing water damage to the inside of the building.



Despite this set-up some water can still leak through the tape or from above the window, you can place a towel on the window sill to absorb this water **before** the cyclone.

All steps in this guide must be taken before the cyclonic winds start as is it extremely dangerous to stand close to windows during a cyclone.