Condensation - An information sheet

Email: sales@ozappliances.com.au

Did you know that glass door fridges form condensation (water) on the outside of the glass in areas with high humidity? This not only gives a bad look, but can cause water to form on your hardwood floor, causing irreparable damage or making tiled floors dangerously slippery.

Not a lot of people realise this when buying a glass door fridge as really in the past glass door was only used for commercial refrigeration in shops and stores etc. But now with the ever growing renovation boom and alfresco area take off glass door fridges are becoming an edition all houses have and need.

Condensation forms basically when there is water in the air (humidity), and because the interior of a fridge is cold, the glass becomes cold too, and this combined with humid weather outside the fridge causes water to form, like in the early mornings you see inner house windows fog up, the glass is still so cold from outside that the water forms on inside.

Now to give you an idea of what's around these days as not many try to combat this problem at all, I have made some basic notes;

1. Normal dual glazed (2 x panes) fridges with just normal glass will start to condensate in about 50-55% humidity, this is market standard and these will pour water in anything over 65-70%.
2. Triple glazed units work better as the front pane doesn't get as cold because we have 3 x layers not 2, so generally 60-65% is pretty good before condensation starts to form.
3. Then we move into LOW E glass, this is a special coating that goes on the glass that reflects heat rays 70% better, it basically keeps cold in better and assists in keeping outer glass warmer. Mostly LOW E will achieve up to 70-75% before condensation starts to form.
4. Argon Gas Fill – This process is in a lot of units and helps protect front glass from getting cold as it provides a layer in between the 2 x panes of gas, this combines with any of the above will help a minimum of another 5% before humidity forms.
5. Heated Glass – The only way to 100% stop condensation on glass is heated glass. This uses a film that is electrically charged at low voltage with power of about 50-65Watt, so this actually at a minimum doubles the energy consumption of the unit, most are 3 times the energy. This can however stop condensation on the body or door frame which is also very, very common.
6. Condensation on the body and door frame is very common in cheaper units. Foaming processes of inner body insulation are very slap happy in a lot of factories and a poor foaming job can cause all sorts of condensation issues, especially if the unit is stainless steel. Coldness can still get from fridge to parts of door frame and sides of fridge, this can then condensate just the same way that glass can, so it's important to ensure your supplier also has this covered. There are ways to combat that by having the hot pipe part of condenser channelled through the inner walls.

So that was a brief lesson on condensation, so people don't get caught out not realising what they are buying, especially in areas north of Sydney, Gold Coast and Far North Queensland where humidity is constant at 90% or above for a lot of the year.

See pictures on next page that shows the effects of high humidity with Normal, LOW E and Heated Glass Doors.





Below shows 70% humidity with Normal Glass on left and LOW E Glass on right.





Any Queries - 1300 1200 76

