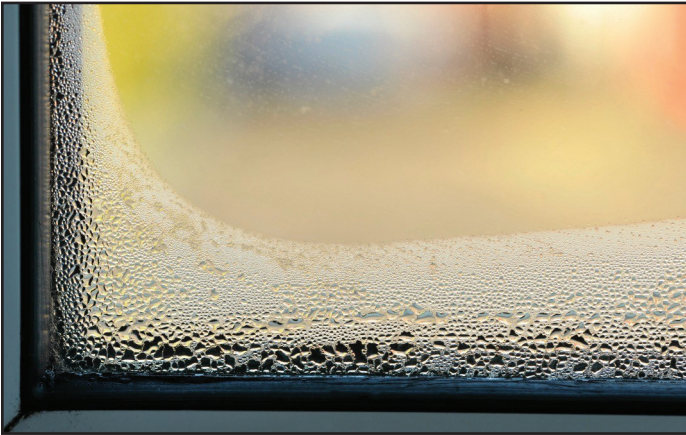




Insulated Glass & Condensation



WHAT IS CONDENSATION?

Condensation is caused when warm, moist air encounters cooler surfaces. It can occur on the interior or the exterior surface.

WHY IS THERE CONDENSATION ON MY WINDOWS?

The energy efficient insulating properties of insulated glass products can cause condensation to be visible under certain conditions, it does not always appear on all window surfaces, but it can occur during different times of the year. Because glass is one of the coldest materials in your home, glass is an impervious material the water has nowhere to go so it collects on the glass and runs downward until it finds a surface to soak into. Simply it is too much humidity in the home, warmer air meeting a cold surface.

EXTERIOR CONDENSATION

The condensation that occurs on the exterior of the glass is like the dew that collects on the grass and the surface of your automobile. It forms when moist air meets a cooler surface. It is most common when the day is warm, and the night is much cooler.

You will not see as much condensation on non-insulated glass because the warm air from within the home keeps the exterior surface of the glass warmer, the better the insulation

Troubleshooting Condensation:

- The best way to tell if the condensation on your double-glazed windows is a bad seal or from indoor humidity. Run your finger through the area where the condensation is formed. If your finger gets wet and leaves a trail through the condensation, it's on the room side of the glass. That tells you that condensation is forming because of excessive indoor humidity.
- Modern homes are more energy efficient than ever before our energy efficient doors and windows greatly reduce our heat loss. If you do not open your windows every once in a while, over the cooler months you could be trapping all the warm moist air inside.
- It is recommended to monitor plants, since they release moisture into the air it is a good idea to remove them from windowsills during colder months.
- Some homes using a humidifier should turn them off or reduce number of hours it is on in the winter months. A hygrometer will help monitor the humidity levels in the home.
- Take advantage of exhaust fans in the home while cooking and showering.
- Check dryer vent hose to ensure it is leak free.



properties of your insulated glass, the less heat transmits through the glass to the exterior surface. Exterior condensation actually shows that the insulated glass is doing its job at retaining the heat in your home.

INTERIOR CONDENSATION

Interior condensation is caused by high humidity inside the home and restricted air circulation. Condensation is more common in the winter months. It occurs on the cooler surface of the glass. Drapes and other window coverings that restrict air flow are common factor in causing condensation. It is not unusual for the perimeter of the glass to condensate in an insulated unit with metal components that transfer the cold from outside to inside.

WHAT CAUSES CONDENSATION?

It is common for temporary seasonal condensation issues to arise when there are sharp quick drops in temperature, as well as the beginning of the heating season. During warm summer months your home can absorb some moisture. Building materials used during construction and remodeling produce a significant amount of moisture in the home. Large windows sometimes show condensation, windows protected from the wind and plants have a higher incident of exterior condensation due to lack of air circulation. Windows protected by screens may react differently than those without screens.

There are a dozen or so reasons of why there is condensation on the glass and what's creating it, either on the inside or outside. It is common for new windows or glass to condensate due to better seals and no longer allowing the humidity to escape around the glass.

CONDENSATION BETWEEN THE GLASS PANELS

If moisture collects between the lites of glass this is an indication that there is a failure of the insulated unit, it will reoccur sometimes even daily. If this condition arises the unit will need to be replaced.



Several Types Of Insulated Units

Dual Seal with PIB Primary Seal (Polyisobutylene)

Polyisobutylene, or PIB, is a synthetic rubber commonly used as an edge sealant in insulated glass units. PIB helps prevent thermo transfer glass to spacer. Combined with the desiccant drying agent, this process produces an insulated unit with a higher insulation factor.

Traditional Box Spacer Insulated units

Single sealed insulated units with metal box spacer combined with desiccant – the drying agent that removes all moisture from the insulated glass.

Super Spacer Tri Seal

Structural strong silicone warm edge spacer system metal free flexible construction. Compensates for common glazing stresses including wind loads, snow loads, driving rain and fluctuating temperatures.