THERMOS
Rive-Nord inc.

INTERNAL CONDENSATION

Glass

The double energy glass is well suited to the North American climate. But if a customer is willing to pay for a triple energy glass, without being essential, it will improve home comfort as well as window performance. Furthermore, the triple glazing provides excellent noise-tightness.

The space between the energy glass layers is filled with argon, an inert gas, that is stable and safe. A layer of silver particles is applied in each sealed glass unit. Silver oxides when exposed to air. Argon is an odorless, colorless, and transparent gas that keeps metal from fading. Furthermore, since argon is heavier than air, it tends to collect at the glass bottom. The window bottom becomes more efficient and the condensation risk decreases.

How to prevent condensation

Condensation can be quite a plague! The best ventilation system in the world and the best windows cannot keep this phenomenon from happening. The Quebec's Provincial Homebuilders Association recommends you to take a few simple steps in order to reduce window condensation.

1- Limit the amount of plants inside the house.

2- Make sure that your dryer is properly connected.

3- Avoid lowering the indoor temperature.

4- Do not store firewood in the basement.

5- Activate the kitchen range hood and the bathroom fan.

6- Clean ventilation grids.

7- Do not prolong showers unnecessarily.

8- Remove mosquito nets during wintertime.

9- Do not close blinds and shades during the evening, which will allow the heating system to warm up the glazing.

Depending on its temperature, air is a gas containing certain levels of steam. The hotter it is, the more moisture it contains without giving any trouble. The window glazing never fogs when it is 30°C outside and the relative humidity is 95%. Why is that? When a gas is heated, its molecules move away and leave more room for water vapor.

During wintertime, air cannot contain the same amount of water vapor when temperature rapidly drops. For the same air volume, the relative humidity rate soars until it reaches its 100% saturation point.

Usually, extra water vapor is deposited on the coldest surfaces, which is the window and door glazing. The phenomenon is accentuated when the window frame forms a shelf depriving the glazing bottom from heat.

High-performance windows will help reduce such weather phenomenon. But under certain extreme conditions, condensation is almost inevitable. As an example, when the outside temperature switches from -10°C to -30°C within a few hours, glazing undergoes these variations. If humidity does not follow the external temperature drop curve, it is almost certain that condensation will occur.