

MANAGING HUMIDITY

VENTILATION, MOISTURE & CONDENSATION

Today's energy-efficient homes are built tightly to seal out the cold weather in winter and keep in the air conditioning in summer. Because of this, it is possible that a new home can be severely damaged by lack of ventilation or by excess moisture.

- During the winter when we heat our homes, the airtightness of your condo may lead to increased condensation, which could be hazardous to your health and home maintenance.
 - When warm, moist air within your home meets cooler surfaces such as windows during the winter, condensation forms. A visible signal is condensation on your windows that requires repeated wiping.
 - Windows have a limited heat loss resistance and are often the coolest component of the home's enclosure. Because of this characteristic, windows are usually the area where condensation is most visible. As condensation occurs on the inside window surfaces, it may be a warning signal to reduce the humidity level in your home.
 - Condensation is at its maximum in newly constructed homes. As your home was being constructed, gallons of water went into the concrete of your building. This water slowly evaporates consequently raising the moisture content above normal.
- It is important to remember that moisture damage caused by improper or inadequate use of your ventilation system, is not covered by the new home warranty.
- In the construction of new homes, The Ontario Building Code requires builders to install a ventilation system to provide you with fresh outside air and to protect your home against moisture damage

WHAT CAUSES MOISTURE DAMAGE?

- Your home can be damaged if weather-related water is allowed to enter and remain in the structure. Water from leaking pipes or fixtures that is not immediately cleaned up, and indoor humidity levels that are not properly controlled, can have serious consequences.
- Sometimes this damage is easily seen, at other times the damage is hidden inside wall and roof spaces. Regardless of where it occurs, moisture damage can lead to serious problems, such as rot, mould, and even structural failure.

HOW TO CONTROL MOISTURE

Ensure a balance of moisture content in your home environment by using the ventilating system (kitchen and toilet exhaust), to exhaust excess airborne moisture caused by bathing, showering, doing laundry and cooking.

- **How to Increase the Ventilation in Your Home**

- **Open windows periodically**

- This may increase your heating bill slightly, however it's the most cost effective way to solve your moisture problem

- **Use exhaust fans consistently**

- Bathroom fans should be used during every bath and shower and remain on for 15 minutes following. Cooking fans should be used during meal preparation. The fan on your clothes dryer is temperature sensitive and in most cases launches automatically

- **Use the ERV**

- An Energy Recovery Ventilator (ERV) provides fresh air from outside into your home, while exhausting stale air from inside your home.

HYGROMETER

A hygrometer is an instrument used to measure the amount of humidity and water vapour in the air. Buy one to keep an eye on humidity in your unit.

Recommended Maximum Relative Humidity Level for Different Outside Temperatures.

Outside Air Temperature Degrees Celsius	Desirable Maximum Inside Relative Humidity (%) Indoor Temp. of 21°C (70°F)
-30 or colder	15% max.
-30 to -25	20% max.
-24 to -19	25% max.
-18 to -12	30% max.
-12 to -7	35% max.

** Please note that this chart is designed to be used as a guideline only*

5 Ways Humidity and Moisture Can Damage Your Home

1. **Mold and Mildew**

When the moisture and humidity combine, it can lead to mildew. It can also lead to your wood absorbing moisture and as a result, growing mold. The more mold wood has, the weaker it will become and eventually it will collapse, which can cause damage to your home.

2. Health Hazards

While it's not a direct effect on your home, humidity and moisture can cause health problems in you and your family members. When mold or mildew grows in your home, its airborne spores can travel through your air ducts and be inhaled. These spores can cause allergies, infections, skin irritation, and more.

3. Mechanical Problems

When humidity settles on toilet tanks, water pipes, HVAC systems, and other mechanical objects, it can slowly cause rust or fungus and lead to failed parts and mechanisms. Failed parts can prevent proper operation and may mean costly fixes.

4. Floor and Wall Issues

Where there is too much humidity in your home, your hardwood floor will absorb moisture from the air, swelling and expanding as a result. This expansion can create pressure between the boards, which can cause the boards to warp, cup or crack. Too much humidity can also create pockets of moisture in your walls. As these pockets spread, they make your wallpaper, paint and/or drywall soggy and will cause them to flake away and need replacing.

5. Damaged Goods

If it's too humid in your home, dry foods can go stale, cans can rust, wooden instruments and furniture can warp, and clothing can take on a musty smell.

OTHER LIFESTYLE AND TIPS TO CONTROL YOUR HOMES VENTILATION & HUMIDITY

- Make it a habit to use your bathroom fan when showering and your kitchen exhaust fan when cooking. This will help remove the moist air from your home.
- Refrain from over watering household plants.
- Avoid hanging wet clothes inside the home. Ensure the clothes dryer is vented to the exterior and the exhaust fan is operating during the use of the dryer.
- Free circulation of air is important. Keep drapes open as much as possible so the air can circulate freely over the windows. If necessary, you may open your windows to reduce localized condensation.
- Be sure to clean the dryer lint screen and the supplementary lint trap after each use of the dryer machine.
- Replace your fan coil filters as required.