# Are you a victim of condensation?

### Questions & Answers To Demystify Condensation

## **FACTS**

- It's simple: if condensation occurs on the inside surface of the windows, the humidity level in your home is too high.
- Foggy windows and doors are an indicator that humidity could be damaging your home.
- More water vapor in the air means a higher indoor humidity. High indoor humidity means condensation.
- During the first year after construction or remodeling, it is likely a house will have more condensation present because of the massive amount of moisture present in the building materials.

### Recommended Humidity

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Outside Temperature	Inside Relative Humidity
-29°C (-20°F)	15 to 20%
-23°C (-10°F)	15 to 20%
-18°C (0°F)	20 to 25%
-12°C (10°F)	25 to 30%
-7°C (20°F)	30 to 35%
> 0°C	40 to 60%

### What is condensation?

Condensation is the light fog or coating of water droplets that appears on the glass of windows and doors in cold weather.
Condenstaion can obstruct the view, drip on the floor, and freeze on glass. It is common to blame the windows, but you shouldn't.

#### What causes window condensation?

Window condensation forms as a result of excess humidity in your home. The glass provides a cold surface on which humidity can visibly condense - similar to the condensation that forms on the glass of a cold drink. Condensation usually occurs on windows first because glass surfaces have the lowest temperature of any of the interior surfaces in the house.

When condensation occurs on your windows and doors, it is a sign that you should reduce the indoor humidity level before it causes problems in your home - like mildew, mold, damaged paint surfaces, rotting wood, or moisture spots.

## Why does my home have indoor humidity?

Moisture is naturally present in the air in the form of vapor and it condenses when in contact with cold surfaces.

## What causes excess humidity?

Many factors can generate moisture, including heating systems, humidifiers, and plants. Everything from cooking to bathing to watering the plants and doing laundry adds moisture to the air in your home.

# My old windows didn't have condensation, why do my new windows have some?

It is common for home owners who replace windows to suddenly start having condensation. This is because they now have windows that are airtight and that make it difficult for excess humidity to escape. Old windows are often draughty, allowing excess humidity to escape through the cracks. Condensation on your new windows indicates that you have excess moisture in your home.

Moreover, wood, plaster, cement and other building materials used in remodeling and new construction release a significant amount of moisture. When the heating season begins, there may be a certain amount of temporary condensation that appears. Sharp quick drops in temperature can also create temporary condensation problems during the heating season.

### How can I reduce the humidity in my house?

- Open a window for a short time to ventilate the house and dilute the humidity level (the heat loss should not be significant)
- Install kitchen and bathroom exhaust fans to vent humid air
- Control the source of moisture and increase ventilation
- Limit the use of humidifiers
- Dehumidifiers may be used if necessary

### Can condensation be temporary?

Yes in the following cases:

- New construction or remodeling
- At the beginning of each heating season
- When quick changes in temperature occur

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### **FACTS**

- Prolongued periods of excess humidity in your home may cause mold, mildew, damaged paint surfaces, rotting wood, moisture spots,
- Under certain conditions, condensation can be temporary.
- Based on the location and orientation of your home, the type of window glass that you choose can affect the risk of condensation.
- The humidity level in your home can be managed.

#### Recommended **Humidity** Inside Relative Outside Humidity **Temperature** -29°C (-20°F) 15 to 20% 15 to 20% -23°C (-10°F) 20 to 25% -18°C (0°F) -12°C (10°F) 25 to 30% -7°C (20°F) 30 to 35% > 0°C 40 to 60%

### Only some rooms have condensation. Why?

When only certain rooms have condensation, it is likely that there is a specific factor causing the increased humidity in the room/area. Potential causes could be plants, appliances, poor ventilation, etc. The solution is to control the source of moisture and to properly ventilate the area.

### Only some windows have condensation. Why?

When only certain windows have condensation, it is possible that air is not circulating properly around the window. In order for air to circulate properly, be sure to install window coverings at least 2.5 inches from the glass surface and that blinds are always raised at least 1.5 inches from the sill. Never stick anything to the window glass and be sure to remove all manufacturers stickers. Opening your curtains and blinds will greatly improve circulation around the window.

### Only the bay/bow window has condensation. Why?

Bay and bow windows project away from the building, causing the window to be more exposed to the cold outdoors. This results in cooler glass surfaces and an increased risk of condensation. The solution is to increase indoor heating in the area of the bay/bow window and to ensure that air is circulating well around the window.

# Is it normal for condensation to form on the outside of the window?

With the right set of atmospheric conditions, it is possible that condensation will form on the outside of the window. Exterior condensation is normal and poses no threat to your home. Conditions which could cause exterior condensation include:

- high relative humidity outdoors
- dramatic changes in temperature
- particularly still or clear nights
- when the temperature of the window glass falls below the outdoor dew point, similar to the condensation that forms on car windshields in the early morning

# We have had window condensation ever since the setback thermostat was installed. Why?

Setback thermostats lower the temperature of the home at specified times (at night, when no one is home, etc.). Lowering the interior temperature consequently lowers the temperature of the window glass - increasing the chances that condensation will form. The solution is to control humidity at the same time that you control temperature.

# Is it normal for condensation to form between the panes of window glass?

If condensation occurs between the panes of window glass, contact your local GreenView dealer, who will assess the situation and guide you.