Condensation

Your Guide To Common Household Condensation

Alside®

Understanding Condensation

Common household condensation, or "sweating" on windows is caused by excess humidity or water vapor in a home. When this water vapor in the air comes in contact with a cold surface such as a mirror or window glass, it turns to water droplets and is called condensation. Occasional condensation, appearing as fog on the windows or glass surfaces, is normal and is no cause for concern.

On the other hand, excessive window condensation, frost, peeling paint, or moisture spots on ceilings and walls can be signs of potentially damaging humidity levels in your home. We tend to notice condensation on windows and mirrors first because moisture doesn't penetrate these surfaces. Yet they are not the problem, simply the indicators that you need to reduce the indoor humidity of your home.

Conquering the Myth . . . Windows Do Not Cause Condensation.

You may be wondering why your new energy-efficient replacement windows show more condensation than your old drafty ones. Your old windows allowed air to flow between the inside of your home and the outdoors. Your new windows create a tight seal between your home and the outside. Excess moisture is unable to escape, and condensation becomes visible. Windows do not cause condensation, but they are often one of the first signs of excessive humidity in the air.

Where Does Indoor Humidity Come From?

All air contains a certain amount of moisture, even indoors. And there are many common things that generate indoor humidity such as your heating system, humidifiers, cooking and showers. In fact, every activity that involves water, even mopping the floors, contributes moisture to the air.

Condensation is more likely to occur in homes where January temperatures drop below 35°F because there are greater temperature extremes affecting the glass in the home.

It is normal to experience condensation at the start of each heating season. During the humid summer months your home absorbs moisture and then perspires when you turn on the heat. This is only temporary. After the first few weeks of heating your home should dry out, reducing, if not eliminating condensation.

The same scenario occurs during remodeling or building projects. Due to the high levels of moisture in wood, plaster and other building materials, your home will temporarily sweat during the first few weeks of the heating season.

Another factor in the condensation equation is progress. With today's modern insulation, moisture-barrier materials and air-tight construction, we all enjoy a more thermally efficient home – one that blocks the cold out, yet traps the moisture in producing higher humidity levels and, more condensation.

Reducing Humidity is the Key.

The best way to reduce condensation is to eliminate excessive humidity. How much humidity is too much? The following table illustrates the recommended levels of indoor humidity during the winter months.

Outside Temperature	*Recommended Relative Humidity*
+20°F	30% - 35%
+10°F	25% - 30%
0°F	20% - 25%
-10°F	15% - 20%
-20°F	15% - 20%

(Indoor humidity can be measured with a humistat or psychrometer.)

By managing excessive humidity in your home you may very well eliminate most, if not all, of your condensation problems.

Six Simple Solutions to Controlling Indoor Humidity.

1. Make sure all sources of ventilation to the outside are functional and use kitchen, bathroom and laundry room exhaust fans during and after humidity-producing activities to vent excess moisture.

2. Air out your home periodically. Opening windows for just a few minutes a day lets the stale moist air escape and the fresh dry air enter without compromising your heating.

3. Check your humidifier settings. Use the humidity comfort levels provided in the table above to correctly set and balance the humidity in your home.

4. Be sure that all louvers in the attic or basement are open and large enough. You can even open your fireplace dampers to allow excess moisture to escape.

5. If you have a large number of house plants, try to concentrate them in one area and be careful not to over water.

6. If troublesome condensation persists, see your heating contractor about an outside air intake for your furnace, venting of gas burning heaters and appliances, or installation of ventilating fans.

A Final Word

Condensation can be very difficult to solve. There are many factors that affect condensation, such as, the number and type of windows in your home, the heating system — hot air or water, the type of insulation and vapor barrier and even the type of soil and quality drainage. If you still have condensation problems after following the simple preventative steps mentioned within, you may need to consult a professional heating contractor or other qualified expert.

Windows qualify for the ENERGY STAR® label when they meet or exceed the established guidelines for energy efficiency. This recognition is granted to only the most advanced, energy-efficient products on the market.

Alside offers a variety of ENERGY STAR qualified products. Consult your window professional for the optimal glass package required for your home and climate zone.

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