

HOW TO REDUCE HUMIDITY

A column by the Associated Press Building editor sums up the problem of reducing humidity this way. He says there are only three ways to reduce humidity:

1. **Controlling sources of humidity:** For instance, venting all gas burners, clothes dryers, etc., to the outdoors. Use of kitchen or bathroom exhaust fans.
2. **Winter ventilation:** Because outside air usually contains less water vapor, it will "dilute" the humidity of inside air. This takes place automatically in older houses through constant infiltration of outside air.
3. **Heat:** The process of heating your home will reduce the relative humidity - providing it's **dry heat**. It will counterbalance most of the moisture produced by modern living.

Now, before we summarize specific steps for reducing humidity in your home, let's include some basic data about **recommended moisture**. You can refer to it if you are inclined to test the moisture levels in your own home.

The table below is the result of long and careful experiments at the University of Minnesota Engineering laboratories. It shows the maximum safe humidities for your home . . . not just for the windows, but for your paint, insulation and structural members, too. In most cases, reducing moisture to these humidities will cure troublesome condensation on windows.

If you test humidity in your home, be sure to use an accurate instrument, preferably a good sling psychrometer. Remember, too, that these relative humidities are for 70 degrees F. For higher inside temperatures, lower humidities are required.

Inside Relative Humidity for 70°F Indoor Air

Outside Air Temperature	Temperature
-20 degrees F or below	not over 15%
-20 degrees F to -10	not over 20%
-10 degrees F to 0	not over 25%
0 degrees F to 10	not over 30%
10 degrees F to 20	not over 35%
20 degrees F to 40	not over 40%

These humidities are generally considered to be comfortable.

7 PRACTICAL STEPS TO CONTROL CONDENSATION

Here, arranged from easy to more difficult, are the steps you should take to reduce condensation on your windows.

1. Put on storm windows or insulated replacement windows.
2. Shut off furnace humidifier and any other humidifying devices in your home.
3. Be sure that louvers in attic or basement crawl space are open and are of adequate size.
4. Run kitchen or other ventilating fans longer and more often than has been your custom.
5. Open fireplace damper to allow easier escape for moisture.
6. Open drapes and blinds to allow warm house air to circulate against the window.
7. Air out your house a few minutes each day. Air out kitchen, laundry, and bathrooms during use or just following use.
8. **If troublesome condensation persists**, see your heating contractor about an outside air intake for your furnace; about venting of gas-burning heaters and appliances; or about installation of ventilating fans.

If the simple remedies we suggest (numbers 1 through 5) don't work, you **really** have a condensation problem. But the changes your heating contractor may recommend to further reduce humidity in your home should not be very expensive. Certainly they will be less expensive than a big paint job caused by excessive water vapor.

You see, the basic principle of reducing window condensation is extremely simple. When there's too much condensation on your windows it means that humidity is too high in your home. You should take necessary steps to reduce humidity until condensation disappears.

But in practice, window condensation and reducing humidity may become very complicated, since many different conditions may affect the way condensation situations relate to different structures. Let us just mention a few:

The number and type of windows in the home.
The type of double glazing system on the windows.
The heating system - hot air or water - perimeter or interior wall heating.
The type of insulation and vapor barrier
Even the type of soil and quality of drainage.

Because of so many variables, a condensation problem can sometimes be very tough to solve. That's why we recommend that you put an expert to work on your problem, if the simpler steps to reduce humidity don't solve your condensation problem. See your heating contractor first. If he can't help, we suggest that you ask your general contractor or lumber dealer to put you in touch with a qualified expert. They are available both at engineering schools and from the staffs of heating, insulation, wallboard or window manufacturers.

Before we leave the subject of reducing humidity, we would like to add the following:

There are two causes of condensation that are **TEMPORARY**. They will disappear after a few weeks or, at most, a season of heating.

First, there is the moisture that comes from new construction or remodeling. There's quite a lot of moisture in the wood, or the plaster or other building materials of a new home. When the heating season starts, this moisture will gradually flow out into the air in the home. Then it will disappear and not cause any more trouble.

Much the same sort of thing happens in milder form at the beginning of each heating season. During the summer, your house has absorbed some moisture. After the first few weeks of heating, your house will be dried out - and you'll have less trouble with condensation.

While we have been discussing the control of condensation we've mentioned just about everything **EXCEPT** windows. There's a good reason.

There just is nothing much that can be done with windows to cut down condensation.

As the building experts have often pointed out, the windows are not to blame for condensation. In the moisture content of the inside air, lie both the cause and the cure.

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Facts About...

WINDOW CONDENSATION



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IT'S THE HUMIDITY**