

## Humidity Levels in Your House

The humidity level in your house can be a big issue in the winter.

In the winter, moisture generated by our activities can lead to too high humidity levels in the house. High humidity levels within the house can cause moisture to condense on windows, doors and skylights, resulting in water staining on walls, and rust and rotting within your house walls. High moisture levels will also promote mould growth, and render insulation useless, as it absorbs the moisture and becomes soaked. In the winter we do not open windows as much as in the summer and the moist indoor air remains trapped inside.

In the winter, we can also have too little moisture in the house. Because the cold outside winter air is so dry, it affects the indoor relative humidity when it enters our homes.

During the heating season, when the outside air temperature is below 10°F (-12°C), the relative humidity should not exceed 30% and in very cold weather, the humidity will need to fall below 15% to prevent condensation or frost on windows.

The University of Minnesota has developed guidelines for the minimum recommended humidity levels for houses. Based on a 70°F (21°C) interior room temperature, engineering studies established the following guidelines:

<u>Outside Temperature</u>		<u>Inside Humidity</u>
40°F or over	5°C or over	Not over 40%
20° to 40°F	-6° to 5°C	Not over 40%
10° to 20°F	-12° to -6°C	Not over 35%
0° to 10°F	-18° to -12°C	Not over 30%
-10° to 0°F	-24° to -18°C	Not over 25%
-20° to -10°F	-30° to -24°C	Not over 20%
-20°F or below	-30°C or below	Not over 15%

These guidelines do not guarantee that condensation will not appear on mirrors or windows. Factors such as closed blinds or drapes may require you to decrease the relative humidity in your house below these guidelines.

A good rule of thumb for controlling relative humidity in the winter: if frost or condensation forms on your windows, mirrors, doors and walls, the humidity is too high and you should turn down the humidistat. You may need to regularly adjust the humidistat setting and the HRV setting to properly control the humidity in your house.

Typically you should not need to use a humidifier in the winter because of the amount of moisture that is generated during your daily activities. And remember to turn on exhaust fans whenever taking showers and baths, doing laundry, or cooking with a lot of water.