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|  | **WINDOW CONDENSATION EXPLAINED** |
| ***1628 U.S Highway 40 • Lawrence, KS • 66044******785-371-0000 • info@meslerexteriors.com******Showroom open weekdays 7:30a-3:30p******Serving you since 1982*** |  |
| **Why do my new replacement windows have condensation on the inside of the glass?** |
| **A common question we hear from homeowners** — both those who have recently had windows replaced and those considering window replacement — is “Why do I have condensation on the inside of my windows?” **To answer the question, let’s determine what causes window condensation:** Condensation is visible evidence of moisture in the air. It may appear as water, frost, or ice on the surface of windows and doors. This occurs more frequently during the winter months because of the extreme differences between the inside and outside air temperatures. The warmer the air, the more water the air can hold, which means that the air in the center of any given room will hold more water than the air adjacent to the window or door walls, since this area is always cooler. When the warm, moisture laden air moves toward the cooler window or door wall, it becomes cooler and cannot hold the moisture it held when it was warmer and is dropped and appears as water on the glass and frames of windows and doors. |
| **Windows do not cause condensation; they just happen to be the place where moisture is most visible.** |
| Condensation is a sign of excess moisture in the home. This can be caused by factors that may be temporary conditions such as: |
| * **New Construction or Remodeling**: Building materials contain a great deal of moisture. As soon as the heat is turned on, this moisture will flow out into the air and settle on door and window glass. This will usually disappear following the first heating season.
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| * **Humid Summers**: During humid summers, houses absorb moisture. This will be apparent during the first few weeks of heating and then should dry out.
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| * **Temperature Change**: Sharp, quick, and sudden drops in temperature especially during the heating season will create temporary condensation problems.
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| **Condensation can also be caused by more permanent conditions.** |
| * **Poor Ventilation**: Insufficient attic ventilation and/or soffit ventilation is trap moisture in the home. Having sufficient soffit vents to allow air flow through the attic ventilation will allow moisture and humidity to escape.
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| * **Excessive Humidity:** Excessive humidity may be the result of poor ventilation but can also be a result of an imbalanced heating and air system or a need to add additional ventilation such as bathroom or kitchen exhaust vents.
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| * **Example:** If the indoor temperature is 70 degrees and the outdoor temperature is 0, then moisture will begin to condense on a single-pane window when there is roughly 15 percent relative humidity in the house. A double-pane window (most common) will cause condensation at around 25-40 percent relative humidity, and a triple-pane window at between 30-50 percent.  These are rough numbers based on average window insulation values.
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| The recommended indoor humidity levels for occupant health and comfort range from 30-50 percent. The general rule in a cold climate, however, is to target the lower end of this spectrum due to the risk of condensation within walls and ceilings. If your house has adequate mechanical ventilation, humidity is less of a concern. |
| **Controlled ventilation and elimination of excessive indoor moisture can keep humidity within bounds.** |
| Here are some suggestions to help reduce indoor moisture: |
| * Turn off or set back furnace humidifiers until sweating (condensation) stops. Remove pots of water on radiators or kerosene heaters**.**
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| * Use exhaust fans or open windows slightly in kitchen, bathroom, and laundry room during periods of high moisture production such as cooking, taking showers, washing, and drying clothes. Clothes driers must be vented outside. Do not hang clothes to dry indoors.
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| * Keep the basement as dry as possible by waterproofing floors and walls.
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| * Make sure attic roof vents are unobstructed. Snow and ice can block these vents from proper ventilation.
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| * Place all house plants in one sunny room where the door can be kept shut and avoid overwatering.
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| * Opening windows slightly for a brief period of time will allow humid air to escape and drier air to enter.
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| * **Use a dehumidifier** to reduce the humidity in the house. Be sure it is properly sized for your home.
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| Excessive indoor humidity and moisture are not the result of your windows, new or old. You should view the amount and severity of window condensation as a clue that moisture damage may be taking place inside the walls or ceiling cavities of your home. This can lead to rotting wood, deteriorating insulation, and blistering exterior paint. |

