

CONDENSATION IN HIGH-PERFORMANCE HOMES

Part 2: Understanding Condensation in Your Home

A Homeowner Guide to What You're Seeing—and Why

Why Condensation Happens (and Why It's Not a Defect)

If you're noticing moisture on your windows, it's natural to worry something is wrong.

In most cases, nothing is broken.

Condensation forms when warm indoor air meets a cooler surface. In modern homes, windows are often the coolest surface—not because they are failing, but because they are performing as designed in a highly insulated, airtight building.

What Condensation Is—and Is Not

Condensation is:

- A response to humidity and temperature
- Common in high-performance homes
- Often seasonal and temporary

Condensation is not:

- A window defect
- A glass failure
- A sign of poor quality

If moisture is between panes of glass, that is a different issue. Moisture on the glass surface is environmental.

Why Modern Homes Experience It More

Today's homes are designed to be:

- Airtight
- Energy efficient
- Comfortable and quiet

These are good things—but they also mean moisture stays inside unless it is intentionally managed.

Older homes leaked air unintentionally. Modern homes require active ventilation.

Common Contributors You Can Control

- Indoor humidity that is too high for the season
- HVAC or ventilation systems not set correctly
- Limited airflow near large windows
- Cooking, bathing, pools, spas, and plants

None of these indicate failure. They indicate balance.

What Usually Helps

- Lowering indoor humidity during cold weather
- Using kitchen and bathroom exhaust consistently
- Ensuring ventilation systems are running as designed
- Allowing air to circulate freely near windows

Your architect or builder can help guide appropriate seasonal settings.

What Not to Do

- Do not assume windows need replacement
- Do not ignore HVAC or ventilation operation
- Do not expect zero condensation in all conditions

High-performance homes behave differently than older ones. Understanding that difference prevents unnecessary cost and frustration.

The Most Important Takeaway

Your windows are not causing condensation. They are showing you how your home is behaving.

With proper system operation and realistic expectations, condensation can usually be reduced, managed, or eliminated—without replacing anything.

A Final Word

High-performance architecture requires partnership—between design, systems, and occupants.

When everyone understands their role, the home performs as intended.