

Understanding Moisture & Mold In Your Home

Ted Reiter - Hallmark Building Supplies, Inc.

Ted Reiter is a Certified DuPont Tyvek Specialist in Water Management Education. You may call Ted with questions at 612-701-8816.

Mold Growth

Mold needs three things—moisture, nutrients, and a suitable place to grow. Of these, controlling the excess moisture in your home is the key to preventing indoor mold. Excess moisture in a home usually stems from two sources; bulk water or moisture build-up. Bulk water typically comes from wind-driven rain getting into the wall assembly. This water source may be the result of a break in the outside envelope or a failure in the flashing around openings. Moisture build-up within your walls comes from high humidity and may be the result of three primary sources.

- Built-in Moisture: A new or remodeled home will have several hundred gallons of moisture from the building materials used. Lumber, concrete, paint, and tile materials are just a few of the products that when installed, have high moisture content. You must have a plan for how this built-in moisture is going to dry properly.
- Air Infiltration: Air leaks in your exterior walls will allow the movement of moisture vapor. These moving air currents carry moisture; therefore, you should use an air barrier on the exterior side of your walls to stop these moisture-laden currents.
- Domestic Activities: Showering, cooking, appliances, plants, and many more daily household routines create moisture within a home. With the proper use of timer switches on exhaust fans, dehumidifiers, and air exchangers, homeowners can adjust the homes humidity level. Homes should try to maintain 30–40 percent relative humidity in the winter and less than 60 percent the rest of the year. To learn more about how domestic activities can affect moisture in your home, read Preventing Window Condensation.

What You Should Know

On an average 2000 square foot home during a 1" rainfall, you will have approximately 13,000 gallons of water fall on your home. In fact, Minnesota averages 28 inches of precipitation per year therefore; you should have a well thought out plan for a watershed. We recommend you consider the four "Ds" when building or remodeling a home.

- Deflection Deflect water away from the home or exterior finish.
- Drainage Provide a path for water to flow and escape.
- Drying Create a forgiving wall system that can quickly dry to the outside.
- Durability Use materials and wall systems that will perform over an extended amount of time.

How Do You Avoid Moisture Problems?

Make sure your contractor understands moisture management. You will not only want them to use products that keep water and air leaks from your exterior walls but also products that will allow drying.

This helpful link may assist you in your understanding of basic building practices.