



The Professional Inspector

Information Publication for Homeowners, Realtors, Mortgage Brokers, Insurance Brokers and Builders

House Make Up

As every guy knows most women wear make up. And most every guy knows the process of applying said make up takes a bit of time. The whole routine of painting, checking and reapplying and rechecking, all very time consuming. Now I used the word painting, because in essence that is exactly what is going on. I have even heard the ladies refer to putting on make up as painting my face. When it comes to homes, painting gives everything a fresh clean look. Often the home is painted prior to sale. Like make up, paint can also be used to hide or soften imperfections. As a Connecticut home inspector I *really* dislike a freshly painted home. My initial thought is;

What Are They Trying To Hide?



A freshly painted basement hides most if not all the clues that the place annually floods with up to six inches of water. The interior ceilings now conceal their telltale water stains. On the exterior, rot and water damage has been painted over, the paint now acting as an adhesive to hold the wood together. These attempts to hide problems can be marginally successful. Since I know the paint is new, I just look closer and harder for clues. Sometimes the paint simply hides nothing. In fact it can bring attention to the problems.

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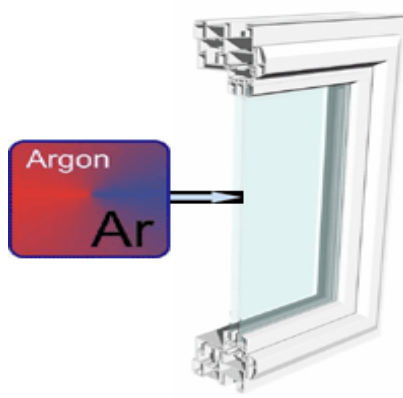


Take for example the exterior of a home I recently inspected. Nice fresh paint and plenty of evidence of deferred maintenance and wood decay in spite of the attempted cover up. Actually I wasn't even the first one to notice, the buyers had seen some of the more obvious defects during their tour of the home. What they weren't prepared for was the depth of the problem. Water damage and decay to the exterior means the same is almost certainly present hidden behind the walls. The extent of the damage cannot be gauged until the repairs begin.



Accepting these problems is a fairly big gamble to take. The repair costs can increase quickly, bankrupting a young couple's budget in short order. Even more troubling is the sellers clear attempts to deceive. I can think of nothing else that can erode a buyers confidence quicker than a dishonest seller. It begs the question, what else is being hidden and won't be discovered until we move in. That can't leave a buyer feeling very warm and fuzzy.

Window Gas Fills: Consumers Should Know



Improvements in window design are an important step toward reducing overall energy costs, as heat gain and loss through windows account for up to half of a home's heating and cooling needs. Gas fills, as well as other efficient or green window features, such as low-E coatings and Heat Mirror® insulating glass, help plug "thermal holes" in the building envelope. When used in conjunction with low-E coatings, gas-filled window units can yield incredibly high R-values, so they make a good choice for retrofitting a home to enhance its overall energy efficiency. Consumers can educate themselves on the benefits of multi-paned gas-filled windows.

What are Gas Fills?

Gas fills are special gases pumped inside insulated glass units (double- and triple-paned window assemblies also known as IGUs) to improve their thermal efficiency. These viscous, slow-moving gases (typically, argon and krypton) allow for less convection than would ordinary air, minimizing convective currents within the window and reducing the transfer of heat across the window.

Homeowners may be able to tell if a building's windows are gas-filled by checking the specifications on the original work order or the window tag, which is typically found along the bottom inside track of the window.

Two small holes may also be observed along the spacer, one where the gas entered the unit and the other for air to exit.

Argon and krypton are the gas fills used most often by window manufacturers to displace the air between the panels in windows. Argon, which comprises slightly less than 1% of the Earth's atmosphere, is non-toxic, inert, clear and odorless. Its thermal conductivity is roughly 67% that of air and it's inexpensive, making it an attractive gas fill.

Krypton shares many qualities with its fellow noble gas argon, except that it's an even better insulator, albeit more expensive to produce. When cost and functionality are considered, argon is a more efficient thermal barrier per dollar spent, especially in the larger ½-inch (11mm to 13mm) gaps between double-paned windows. Krypton is more commonly used in the tighter ¼-inch to 3/8-inch (6mm to 9mm) gaps within triple-paned windows. A mixture of krypton, argon and oxygen gases is sometimes used to reconcile performance and price, and occasionally xenon and nitrogen are used, as well.

Gas Leaks

Gas-filled windows will leak over time, as much as 1% per year, according to some estimates depending on the quality of the window and its installation, the building's climate, including its exposure to the sun and the altitude, and other factors. However, these windows will usually perform adequately even after many years of gradual depressurization. According to the National Glass Association, if 80% of the gas remains in spite of gradual leakage over time, a window can be expected to maintain its properties and effectiveness. That means that, "even if 1% was leaking out per year, the window would still be effective in 20 years."



If the breach is significant, however, the window will no longer be an effective thermal barrier and may require replacement. Condensation or fog inside the window unit indicates that the gas fill has escaped and been replaced with moisture-laden air. Homeowners should clean the window's exterior to be sure that the observed moisture is, in fact, within the window rather than on its surface. The manufacturer or installer should be contacted if the window fails. Leaks can be detected only with special gas-detection equipment. But homeowners should rest assured that leaked argon or krypton poses no health hazards to a home's occupants.

One rare yet shocking consequence of argon leakage is the sudden implosion of the window. Due to molecular differences between argon and the principal components of air, nitrogen and oxygen, argon under pressure to escape a window unit may exit the seal faster than it can be replaced with air. Under this circumstance, the glass will bend inward to accommodate the gradual reduction in pressure within the window. If conditions are right, according to US Glass Magazine, "units have been reported to shatter with a bang, sometimes described as loud as a gunshot.

While the broken glass usually stays within the unit, on at least one occasion, glass has shattered with enough force to send glass shards flying outward." Elevation differences

between the location where the IGU was first pressurized and its installation location may also account for the negative pressure. This phenomenon is quite rare, however, especially in newer windows with superior seals.

In summary, double- and triple-paned windows are often filled with the gases argon or krypton to reduce convection within the window units to improve the building's overall energy efficiency. IGUs can be huge energy-savers for homeowners, and BCIPi inspectors can help their clients determine whether these windows are the right choice.

by Nick Gromicko and Rob London

Foreclosure Inspections: Trust Your Gut

So, you want to buy a house cheap, and you look to the foreclosure market. Considering the over-abundance of these properties and just how little many of them are going for, it's tempting to jump on the bandwagon and buy up. And it may pay off as a long-term investment. But, like any other major purchase, you should know as much as you can about a property before you buy it, which is why home inspections, performed by certified BCIPi inspector, is necessary.



Unfortunately, a few real estate agents, who don't like bargaining with banks, are advising clients that home inspections are of no value as a bargaining tool, since banks don't negotiate on "as is" properties. As an added disincentive, banks selling properties "as is" have no legal responsibility for any lurking defects. While the agent's advice to forgo an inspection as a means to negotiate on the price may be logical, it is startlingly counter-intuitive, and possibly even negligent. Would you buy a car without knowing whether it has a transmission?

Anyone advising against an inspection on a foreclosure (or neglecting to recommend that one be performed) is ignoring the likelihood that, long before the previous owners stopped making mortgage payments, they deferred required maintenance tasks. Moisture intrusion leading to leaks and mold are just a few of the major problems commonly found by inspectors in foreclosed properties. Tales abound of bizarre discoveries in abandoned properties, from wild boars to colossal bees nests. Former owners may loot their own properties, taking with them anything they can pry up or unscrew, and leave behind trash and junk that you have to pay for to have removed.

There are also stories of foreclosed properties that have been intentionally vandalized by their former owners in acts of retaliation against their banks. In one infamous case in early 2010, an Ohioan bulldozed his \$250,000 home after the IRS placed liens on his carpet store, and then threatened to take his house. The damage done by the owner was apparent, but there are probably less extreme situations where the damage isn't as obvious, making a home inspection of utmost priority.

You should always get a home inspection before buying a property, especially when you're buying a bank-owned foreclosure. In such cases, it may be impossible to find out how well the home was cared for, or whether major damage was done right before the past owners left the property. Ask the bank how much time you have after your initial offer to have an inspection performed, and schedule one immediately. If it goes well, you'll enter into the deal with peace of mind and a better idea of what repairs you'll have to deal with. That alone is worth the price of an inspection. If the inspection reveals a costly disaster, you can back out of the deal and save tens or even hundreds of thousands of dollars.

by Nick Gromicko and Rob London

House Numbers

Ever wonder about your house number? Often, the previous owner installed the number and the new owner never had to think about it, leaving them clueless as to why it was placed where it is or why a particular color or size was chosen. These numbers are more important than you probably realize, and a lot of thought goes into making sure they are visible.

House numbers should be clear enough so that police, the fire department, paramedics, etc., can quickly locate properties in an emergency. Numbers are often the only way that first-responders can identify their intended destinations. Your city might even have laws requiring your house number to be of a certain size or color. Also, think of the poor pizza delivery guy who runs late because he can't find your house, or frustrated party guests who have to knock on neighbors' doors before they find yours.

Consider the Following Recommendations

The numbers should be large, within reason. Try to make them at least 5 or 6 inches tall. Smaller numbers may not be visible from the street if you have a large front yard. Replacement house numbers can be purchased from hardware stores and online.

The numbers should be of a color that contrasts with their background. Reflective numbers are great because they are easier to see at night. Brown on black or white on yellow may look swanky but are bad choices for the purpose.

Try not to put house numbers behind any trees, shrubs, or anything else that may obscure their view from the street.

Make sure that the number faces the street that is listed in the house's address. It does emergency workers no good if the house number faces a different street than the one the workers are traveling on. Is your house not visible from the road? Then the number should be placed at the driveway's entrance.

Keep In Mind That You May Need To Make Adjustments

The following are common reasons why you may need to adjust your number in the future:

The addresses assigned to houses by the city occasionally change, and you must adjust your numbers accordingly.

The trees or shrubs in front of your house have grown so much that the number is no longer visible. House numbers installed in the winter may be visible during that season, but become blocked by budding vegetation by spring or summer.

Maintain Your House Numbers, Along With The Rest Of Your Home's Exterior

- Keep your numbers clean. They may not be reflective or contrasting if they are covered in mud.
- Trim back vegetation as needed.
- Don't let piles of snow obscure the numbers. If this happens, raise the number so this situation does not happen again.

In summary, house numbers serve a critical function for emergency personnel and should be clearly displayed.

by Nick Gromicko and Rob London

Industry News

[BC Housing Market Update July 2011](#)

BC Real Estate Association online video with Chief Economist Cameron Muir discusses the June 2011 statistics and an in depth look at net migration in the BC regions.

[Foreign Investment Not Driving Prices In Lower Mainland](#)

Urban Futures says publicly available data do not support the anecdote that foreign investors are driving residential price increases in the Lower Mainland: overall they accounted for 0.4 percent of all residential sales in the region in 2010.

[Provincial Current Trends July 2011](#)

RBC provides statistics on Canadian provincial current trends and economic indicators. (PDF)

[Estimating Amount Of Concrete For Steps](#)

Concrete Network online slab calculator can figure out the concrete needed for porch surface, and footing calculator can calculate the sides of the porch and the steps.

[Thoughtful Details For Stairs](#)

Builder Magazine online slide show describes how innovative installments and thoughtful details can bring staircases to new heights.

[Energy Efficiency In 2012 BC Building Code](#)

Urban Development Institute describes how the 2012 update to the BC Building Code will bring significant new requirements for energy efficiency.

[Problems & Solutions For Floor Slabs](#)

Building Science online slide show describes problems and solutions for concrete floor slabs. (PDF)

[Concrete Moisture Problems](#)

Concrete Network says water vapor from the floor can make rooms more humid, which can be a concern with new tighter home construction. In extreme cases, when you started with wet concrete or when the ground beneath the slab is very wet, the floor can actually be damp and slick and moisture will condense beneath objects placed on the slab.

[Big Changes & Future Trends In Sustainable Buildings](#)

Building Science online slide show on healthy, durable, energy efficient and more sustainable buildings describes big changes and future trends. (PDF)

[Zero Energy Not Feasible For All New Housing](#)

Big Builder article by a builder and a land use lawyer and planning consultant says zero net energy is a lofty goal, and its application to even a small percentage of new homes serves as a proving ground for new technologies and new design methods, some of which can be applied to production homes. It is not, however, a feasible or practical approach for all new housing. Nor should it be.

[Get Rid Of Naturally Aspirating Gas Water Heaters](#)

Green Building Advisor says some experts think it's time to ban atmospherically vented gas water heaters from green homes. The alternatives, electric-resistance and heat-pump water heaters, are getting more efficient, and they won't fill tight homes with poisonous exhaust fumes.

[Asbestos: The Hidden Killer](#)

WorkSafe BC has a new asbestos website that provides information and resources on asbestos-exposure prevention.

[Home Fires Linked To Spray Foam Installation](#)

Green Building Advisor says some home fires have been linked to spray foam installation.

[Top Tools From 2011 National Hardware Show](#)

Popular Mechanics describes what it feels are the top 8 tools from the 2011 National Hardware Show.

[How To Retrofit Cathedral Roof With Insulation](#)

Green Building Advisor discusses whether is it better to add insulation to a cathedral roof on the inside, or on top of the roof deck.

Product Recalls

[CO Risk For Navien Hot Water Heaters](#)

Technical Standards and Safety Authority bulletin says the connection between the vent collar and the vent pipe on a limited production run of instantaneous (tankless) water heaters manufactured by Navien may not have fused properly during the installation. Any connection of the venting system not properly fused has the potential to expel flue products into the living space. These flue products may include Carbon Monoxide.

[Product Recalls For Venmar Air Exchangers](#)

Health Canada Safety Upgrade Program involves Venmar air exchangers sold under different brands. Air exchangers included were manufactured from 1983 through 2001 and have brand and model information printed on the unit's rating plate or on the side of the unit. The motor in the air exchangers can overheat, posing a fire hazard.

Services Provided By Pacific West Home Inspections

- Pre-Purchase & Pre-Selling Residential & Commercial Inspections
- Year End Warranty Inspections
- New Home Deficiency Inspections
- Pre-Renovation Inspections
- Wood Burning Appliance Inspections
- Chimney Inspections
- Grow-Op Inspections
- Mould Inspections
- Oil Tank Inspections
- Indoor Air Quality Investigations
- Home Renovation Consultant
- Seasonal Home Check & Maintenance
- Water Quality Testing
- Air Testing
- Radon Testing



Serving Clients For Over 15 Years

About Us

At Pacific West Home Inspections, you will find the home and property information, educational and industry news that will help raise your professionalism and that of the house and property inspection industry as a whole. Dave Brice of Pacific West Home Inspections is the editor and publisher and has been involved in the home and property inspection field since 1998 and the construction industry for over 25 years. For additional information about the services Pacific West Home Inspection provide articles and E-Books that can be downloaded for no cost, go to www.bchomeinspections.ca website.

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