Claims News

Infrared Finds Mold

(Chris Gerber)

Over the past few years, the number of negligence law suits against building owners and managers, contractors, and their insurers claiming personal injury or property damage from mold has exploded. Insurance companies across the country have added riders to their homeowner policies, specifically excluding coverage for personal injury resulting from mold. Homeowners, apartment tenants and many businesses, such as hotels and motels, also not covered, reacted by suing for negligence, leaving builders, contractors, building managers, and rental and commercial property owners highly vulnerable to litigation.

Increased litigation also has put emphasis on the ability to prove or disprove responsibility for water intrusion, a prerequisite for mold growth in buildings. Proving or disproving the cause and effect of mold damage, however, has been time consuming and expensive, because it first requires finding moisture intrusion in structures. Until recently, this search for moisture has combined visual inspection, experience in locating intrusive moisture, the use of contact moisture meters, and tearing out walls and ceilings.

Infrared thermography, the non-destructive diagnostic technique widely used by the military and law enforcement, can detect moisture invisible to the naked eye in building materials. The process is helping insurance companies and their clients to reduce the cost and time required to establish liability for water intrusion and, thus, likely areas of mold contamination. A water damage evaluation can be conducted with an infrared (IR) camera in about one-fifth of the time that it takes with a moisture meter. Infrared technology also is more accurate and more sensitive.

In situations involving some sort of a water intrusion or water damage, the areas that become wet often are within wall cavities or in ceilings, or water has migrated underneath flooring material. This sort of damage cannot be seen and often cannot be detected with direct-read moisture meters, which only have the ability to penetrate to certain depths. The IR camera, on the other hand, can give almost instantaneous information regarding the extent of the areas that have become wet.

The IR camera is less tedious and time consuming than traditional moisture detectors. With the IR camera, the operator can stand in the center of the room and scan the walls, ceiling, and floor. If cold or hot spots are detected, the presence of moisture can be confirmed with a moisture meter.

Infrared technology also eliminates the guesswork. Before infrared, a typical report would provide a diagram, based on moisture meter readings, showing areas of probable mold. Instructions to the remediation contractor would direct him to start tearing building materials apart and disassembling walls in order to chase down the full extent of the water damage, using visual indications as the building was disassembled.

Today, the typical report can be much nearer to a close-ended scope of work. The area that became wet can be specified, and other areas in the building that have damage can be identified, as can those areas that are not related to the loss. The contractor can prepare an estimate that will be accurate, and can plan for the project and manage it using that information.

It is not always necessary to make holes in walls to conclude that mold is present. If an area is wet, the source can be determined with IR, and it is known that it has been leaking for several weeks, it can be assumed that there is mold. Not having to put holes in walls to find problems can save homeowners money, money that can be spent fixing the problems. In addition, determining the source of leaks often can determine who has to pay for repairs and mold removal.

Recent technological advances have allowed the manufacture of inexpensive, high-performance IR cameras that weigh only 1 and ½ pounds, and that include software for report generation. As a result, the use of IR as a building diagnostic tool to pinpoint interior water damage and moisture-related problems, such as mold, structural detects, and insect infestation, quickly, accurately, and non-invasively has increased dramatically.

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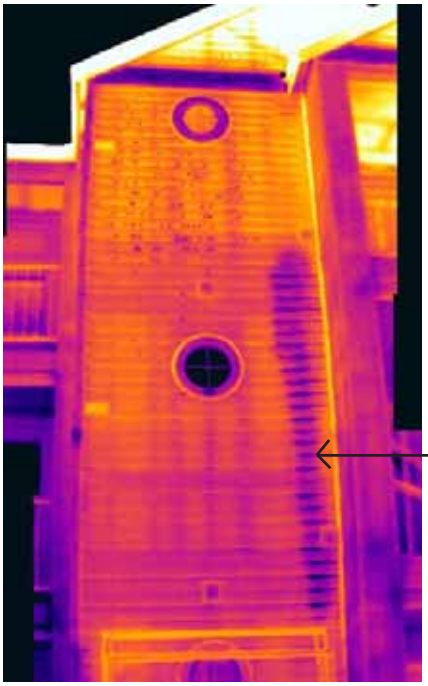

photos courtesy of FLIR Infrared Camera Systems

Infrared thermography used on this apartment building shows a water leak from a third floor washing machine.

Moisture in building materials can destroy structural integrity and nurture mold. Compleat Restorations and Compleat Environmental Services (our division specializing in indoor air quality, mold remediation) use infrared thermography to detect moisture. The IR diagnostic procedure is non-destructive, more accurate, and saves time (money) in determining water intrusion source and liability.

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