

Thermography: Claims Adjudication's Science of the Future

By David Clayton

Millions of dollars worth of building defect litigation is going on today, and water intrusion, which often causes mold to grow, is one of the major issues. Infrared (IR) thermography, the non-destructive diagnostic technology that allows one to detect moisture invisible to the naked eye on or below the surface of an object, can help insurance companies to significantly reduce the cost and time required to determine with certainty the liability for water intrusion, and thus likely areas of mold contamination.

The U.S. Chamber of Commerce reported that in 2003 there were more than 10,000 mold cases pending nationwide, a 300 percent increase over 1991, and the Insurance Information Institute estimates that settlements for mold related claims went from virtually non-existent to \$3 billion during the same period.

Two or three years ago, a lot of people thought mold was going to be the replacement for asbestos in terms of litigation after several high profile settlements: *Ballard v. Farmers Insurance Exchange* in Texas and California; *Darren Mazza et al v. Raymond Schultz et al*, and let's not forget *McMahon v. American Equity Insurance Co. et al* and *Ferrigno v. Mercury Insurance Co.*, which involved the homes of TV personalities Ed McMahon and most recently, Lou "The Hulk" Ferrigno.

In the Mazza case, the first, and to date the only successful mold personal injury suit decided by a jury—all others have been settled prior to trial—the plaintiffs received \$2.7 million plus fees and court costs for injuries allegedly caused by mold exposure.

While suing for water and mold damage has not turned out to be the litigation windfall that asbestos was, it still can be a problem and you still have to clean the mess up. An IR camera can help correct the problem by confirming and defining it.

The sheer number of claims that were generated forced the

insurance industry here in California and across the country to add riders to their homeowner policies, specifically excluding coverage for personal injury resulting from mold.

As a result, homeowners, apartment tenants and many businesses, such as hotels and motels, also not covered, have started suing for negligence, leaving builders and contractors, building managers and rental and commercial building owners and their insurance carriers highly vulnerable to litigation.

But until now, proving or disproving the cause and origin of the invasive moisture, what caused the damage and where it's coming from, and determining whether it's covered and if it is, how much it's going

to cost to repair it, has been time consuming, expensive and often inconclusive. The process of finding the source of the moisture intrusion is the hard part, and has usually combined visual inspection, field experience in locating intrusive moisture, the use of contact moisture meters and tearing out walls and ceilings.

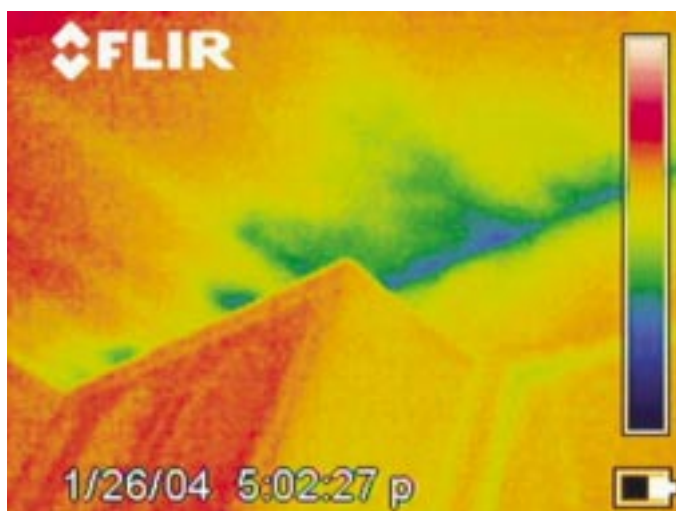
However, infrared, the technology used by the military and law enforcement, industry and science, can determine conclusively the cause and responsibility for water intrusion, by quickly, accurately and inexpensively identify its source, route and scope. The IR camera reduces the process required by older technologies, such as moisture probes, from weeks to days. And it's hard to argue with assumptions and speculations vs. scientific information, no matter how expert you are.

I myself am qualified in California courts of law as an expert witness in a number of different fields and when you pull out these thermal pictures, boom, it's all over with. Just as you can't argue with DNA evidence anymore.

In the past, insurance companies have relied on techniques that have proven not to be as reliable. IR is going to allow the industry to be more exact in the data that it obtains, and to be able to resolve any claims that may be occurring now, as well as in the future, more quickly and cost-effectively, saving time and money. A large part of the savings is in the fact that more often than not, when infrared is involved, the case never gets to court.

It is simply going to be a matter of time before everybody in the industry is using infrared, because you cannot debate the scientific results. The insurance industry is in a position to jump on board and run with the technology.

If they don't adapt to infrared thermography, sooner or later it will be recognized by plaintiff's counsel as the way to determine whether or not there was water damage, and if there was, whether the insurance companies' certified vendors used the proper and latest



Infrared color thermal image clearly shows moisture intrusion, a potential source of mold growth, in corner of ceiling. New FLIR ThermoCAM® B-Series of infrared cameras, specifically designed for building inspection, can instantly and non-invasively detect moisture and structural problems. High-resolution B1 shown is a rugged, ultra-compact and affordable model that can instantaneously inspect entire rooms—including places that are difficult to reach. All B-series cameras store JPEG images which can be easily downloaded to a PC, and support software that can generate reports literally with the click of a mouse.

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techniques to correct and prevent further damage, like mold.

The industry in the last five years has gone through a major upheaval as a result of lawsuits from victims of water damage that were not properly adjudicated. The infrared camera, in my opinion, gives it the ability to refute these types of claims, by saying to a plaintiff's lawyer who's trying to show that they failed to properly protect their client: "We can prove scientifically that there was no problem."

Builders should have something like this. Say they throw up 300 homes in a year. Why wait for them to rot? They could go in with an IR camera and water-test their buildings prior to sale, deal with any problems they discover and not worry about any mold problems. They've got their industrial hygienists; their water restorers; and their reconstruction people. But they're all waiting for the homeowner to come to them with a problem. If they tested their houses before they sold them, they'd eliminate many of their building

How Infrared Thermography Works

Thermography enables us to see and measure heat. All materials on earth emit heat energy, in the infrared portion of the spectrum. Unfortunately, the unaided human eye cannot see in the infrared. However, infrared cameras can not only see, but also record infrared images and measure the temperatures of objects and areas of objects quite accurately. Real-time imaging allows the user

to see the infrared image displayed as the camera is moved, like a viewfinder.

Thermography can pinpoint leaks in roofing and other building materials by exploiting the thermal properties of water. Water stores heat very well; it warms up or cools down more slowly than other materials common in buildings. This property is called "specific heat" by physicists.

defect litigation problems.

From this day forward, my insurance agency will only use a vendor or contractor who has an infrared camera. We will not entrust any of our clients to the hands of a contractor who does not have the knowledge, the expertise and the equipment to utilize infrared thermography, simply because of the expertise and the data that it

can provide us.

Based on my knowledge and experience, thermography is the future in water damage and mold claims adjudication for the insurance industry. Plain and simple: you can take that to the bank. ■

David Clayton is president of Fremont, Calif.-based Clayton Insurance Agency.



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