



NDT&E Tech Brief

Is Your Leakage a Leak?

One of the most important references for non-destructive testing and evaluation is ASTM E2128, *Standard Guide for Evaluating Water Leakage of Building Walls*. It defines “**water leakage**” as 1) “uncontrolled” water, or 2) water that causes “subsequent damage or premature deterioration.”

1) Leak: The standard proceeds to use the word “leak” for uncontrolled water. Another ASTM document defines a leak as “ponding on the floor.”

The difference between leakage and leak is strikingly demonstrated in this sentence: “Evidence of leakage might be observed by the evaluator at locations where an occupant has not observed or reported a leak.”

The interview section of the standard contains a set of questions to ask about leaks that occur during rains: when does the leak start and stop, is it regardless of severity or wind direction, and so on.

2) Damage: The standard also uses phrases such as “observed leaks **and** damage” to reinforce that leakage can be a cause of damage, but damage and deterioration themselves **are not leaks**.

Water damage or deterioration, on the other hand, will, over time and after many rains, get worse and worse, but it can’t be connected to specific, individual rain events. And because there is no leak, there will be a great deal of water trapped behind the damaged or deteriorated paint, plaster, brick, or concrete.

This doesn’t mean that the source of the water leakage cannot be determined by water penetration testing, but **first the damaged or deteriorated construction must be removed**. This will release the trapped moisture (which otherwise can lead to false negatives) and allow for testing to start and stop and start again (so that secondary sources of water penetration can also be identified, for example).



So please, before asking for water penetration testing, **is your leakage a leak?** For a list of all of the tests that SUPERSTRUCTURES provides, including water penetration testing, click [here](#).

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