



Moisture Testing – VPI Requirements: Addendum

Due to the wider use of *in situ* probe testing (RH testing) versus calcium chloride testing (MVER testing) VPI has developed the following addendum to our standard installation instructions.

Prior to installing VPI tile, the concrete substrate must be tested for moisture using the methodologies specified in either **ASTM F 1869** Standard Test Method for Measuring Moisture Vapor Emission Rate (MVER Testing) of Concrete Subfloor Using Anhydrous Calcium Chloride or **ASTM F 2170** Standard Test Method for Determining Relative Humidity (RH Testing) in Concrete Floor Slabs using *in situ* Probes.

WARNING: F1869 determines the portion of free moisture, in the test area, that is near the surface of the slab and that can be released from the slab over a short time period **at any single point in time**. Separately F2170 measures the existing relative humidity within the slab at a specific depth **at any single point in time**.

HOWEVER, BOTH TEST METHODOLOGIES ONLY PROVIDE A “SNAPSHOT IN TIME” INDICATING MOISTURE AT THE DATE OF THE TEST AND NOT THE MOISTURE LEVEL IN THE SLAB AT ANY DATE IN THE FUTURE. THEREFORE INSTALLING A WARRANTED MOISTURE BARRIER OR VAPOR RETARDER IS STRONGLY RECOMMENDED TO PROPERLY SAFEGUARD AGAINST PROBLEMS CAUSED BY MOISTURE.

Before conducting any testing, the installation area (and concrete temperature range) must be maintained between 65°F (19°C) and 85° F (30°C) for at least 48 hours prior to testing, during testing and thereafter as temperature (and associated atmospheric humidity) can also impact test results. If using F2170 testing methodologies, equipment that has been independently calibrated & certified no more than 30 days prior to testing should be used.

FOR RH TESTING, RH TEST LEVELS SHOULD NOT EXCEED A LIMIT OF 75%. FOR MVER TESTING, MVER TEST LEVELS SHOULD NOT EXCEED A LIMIT OF 5LBS. DO NOT INSTALL TILE IF EITHER LIMIT IS EXCEEDED OR IF THERE IS ANY RISK OF HYDROSTATIC PRESSURE.