

CONCRETE MOISTURE AND ALKALINITY TESTING INSTRUCTIONS



1. SURVEY JOB SITE CONDITIONS

Verify that the building's environmental controls are operational. The building temperature and humidity should be representative of what it would be during normal use. The temperature should be between 65° F to 85° F and the relative humidity between 40% and 60% for a minimum of 48 hours prior to conducting tests.



2. SCHEDULE ACCORDINGLY

On the first day preparation will take place. On the following day the tests should be set and then later retrieved in 60 to 72 hours. The tests need to remain undisturbed for a minimum of 60 hours and a maximum 72 hours.



3. TEST LOCATION & FREQUENCY

Place tests throughout the area with some in the middle of the building, at the perimeter, over cracks and joints and especially in areas of potential moisture. The tests should be performed at a rate of three tests for the first 1,000 Square Feet and one additional test for each additional 1,000 Square Feet.



4. TEST SITE PREPARATION

Remove foreign substances such as adhesives, curing compounds, sealers and floor covering materials. Before removing foreign substances and/or preparing the test site verify that the existing materials do not contain asbestos and/or lead. Prepare a 20" x 20" test site by mechanical means and leave exposed a minimum of 24 hours prior to setting the tests.

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5. WEIGH CALCIUM CHLORIDE CONTAINER

Remove calcium chloride from packaging and weigh with a gram scale capable of measuring 0.1 gram. Do not remove tape prior to weighing. To assure more accurate results always weigh tests on site and just prior to setting. Record the weight and time on the dish label. Remove tape from calcium chloride container and adhere to the outside of dome for safe storage.



6. PLACING DOME COVER

Remove dish lid and place underneath the bottom piece. **Be careful not to spill any calcium chloride.** Place open calcium chloride container on the center of the test site, remove gasket cover and adhere dome to the concrete surface. Press firmly on flange until gasket reaches the outer part of the flange. Press on the center of the dome to check for leaks.



7. RETRIEVING CALCIUM CHLORIDE CONTAINER

Cut dome top with a box knife in a u-shape large enough to remove the calcium chloride container without spilling any calcium chloride. Replace dish lid cover, re-adhere tape and re-weigh. Record the weight and time on the dish label.



8. PERFORM ALKALINITY TESTS

Perform one alkalinity tests for every calcium chloride test. Place a quarter-sized amount of the pre-packaged test solution on concrete surface. Let solution stand for sixty seconds. Place pH paper into solution and let stand for five seconds. Remove pH paper and immediately compare to color chart below. Record pH test results on the corresponding calcium chloride dish.



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