



MOISTURE TESTING AND HYDROSTATIC VAPOR BARRIERS

Why perform moisture tests prior to epoxy installation?

Epoxy overlays/coatings can be sensitive to concrete slab moisture emission volumes if they exceed the products tolerance level. Epoxy overlay/coatings adhere directly to concrete slabs and may be subject to failure if moisture levels exceed the products tolerances over time causing bubbles, or de-bonding of the epoxy from the substrate.

What are some of the causes of high moisture in concrete?

- Concrete is newly poured, has less than 28 days cure
- Extensive landscape watering around building or area of work
- Broken pipes under the slab
- High water table in area
- Excessive washing down of area of work prior to placement of moisture test.

When should moisture testing be done?

Tera-Lite will perform moisture testing if specified or upon request. Tera-Lite will also require moisture testing if after visiting the site we feel there are indications that hydrostatic moisture may be a problem (i.e. calcium deposits on the concrete surface, wet staining, actual standing water or lifting of current coating or floor covering if present).

What is a moisture test?

Tera-Lite uses a Calcium Chloride Concrete Moisture Vapor Emission Test Kit. This kit contains a pre-weighed container of calcium chloride that is placed under a plastic dome whose edges are sealed to the concrete substrate. This test must be left undisturbed for a period of approx 3 days. The test is then weighed upon removal and a calculation is done that provides “pounds per 1,000 sq ft in 24 hours”. Tera-Lite will provide written test results indicating if a moisture barrier is required.

How many tests need to be placed?

Generally, 1 test per approx 1,000 sq ft is sufficient; however, more tests may be required if the areas of installation are spread out or in different buildings, etc.

What do my test results mean?

When you receive the written test results from Tera-Lite it will have a table that shows the date and time the tests were set, the date and time they were removed, the location of each test and the final test results in lbs (see below).

	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>	<u>Test #4</u>	<u>Test #5</u>
Date Placed:					
Time Placed:					
Date Removed:					
Time Removed:					
Reading:					
Area:					

NOTE: If the readings above are in excess of 10 lbs / 1000 sq ft / 24 hours a vapor emission barrier will be required. See your sales representative for further recommendations.

These tests indicate what the hydrostatic moisture pressure was at the time of testing only, Tera-Lite has no way to predict if future moisture problems will occur due to hydrostatic moisture pressure. Tera-Lite offers no warranty for moisture failure if a vapor barrier is not installed

The test results indicate that I need a vapor barrier, but what if I don't want to pay to have it installed?

Tera-Lite would strongly suggest that if your test results are over what is allowed that you have the moisture barrier installed; however, if you still choose not to have the vapor barrier installed then Tera-Lite will continue with the epoxy installation but a release will need to be signed by all parties concerned acknowledging that there will be no warranty against delamination or failure due to moisture.

The test results indicate that I need a vapor barrier, now what?

If Tera-Lite has not already provided you an ADD on your original quote then we will provide one if your results indicate it is required. The installation of the vapor barrier will add approx. 1 additional day to our scheduled installation time.

Tera-Lite installs AquaFin Vaportight Coat SG3 or SG2 (oil contaminated concrete) as a vapor barrier under our epoxy systems only. For further information on AquaFin please see their data sheet located on our website (www.teralite.com) or request a copy.