

Use

To obtain a numerical value indicating the rate of moisture vapor escaping from a concrete floor surface in a 24 hour period. The results indicate whether or not a surface is suitable to receive floor coverings, coatings or cement toppings. The test may be used for testing vapor control coating products before and after application as a field quality control test.

Test History

Developed by the US Rubber Manufacturers Association (RMA) in the 1950's, this test method was released as ASTM F1869 in late 1998 and remains the most widely used test method for testing.

Limitation

All concrete substrate testing requires temperature and humidity of the building to be sustained for accurate results. Results obtained before a controlled environment is achieved may be used for reference only, with future testing to be performed under ideal conditions. Do not install near windows or direct sunlight.

Building Conditioning

Begin testing at the same temperature and humidity expected during normal building use. If this is not possible, ASTM F1869 allows for test conditions to be 65°F to 75°F and 40% to 60% relative humidity this needs to be maintained for 48 hours prior to and during testing. The use of a temperature and humidity data logger may be used to verify conditions during testing. Contact our technical department for details.

Installation

The amount of tests required is a simple calculation of the total square feet to be floored, at all grade levels. ASTM F1869 guidelines state three (3) tests for the first 1,000 square feet and one (1) additional test for each additional 1,000 square feet thereafter. Examples: 1,000 ft² = 3 tests | 10,000 ft² = 12 tests

Test Area/ Preparation

Clean a 20" x 20" area free of flooring, coatings, patching cements, adhesive residue and expose a clean concrete surface. To speed the process, a dustless grinder may be used to clean the surface. Do not use acid etching, water, strippers or clean sweeping agents.

Test Duration

Protect all test sites from damage for 60 to 72 hours.

Results

The final test results are reported as a quantity of moisture expressed as the weight of condensed gas (liquid) in pounds that is emitted over 1,000 ft² area during a 24 hour period. Results may vary from 0.00 to 30.00 /1,000 ft²/24 hours.

Flooring and Adhesive Requirements

The industries most stringent vapor requirement is 3.0 lbs. or less. Verify each manufacturer's tolerance before installation of the flooring product.

Shelf Life

AMT kits are manufactured with high quality components and offer unlimited shelf life with no expiration date.

Dome Cover

o Thick 30 - 35 mill construction o Excellent crush resistance

Calcium Chloride Salt & Dish

o Salt Purity up to 97%, non-recycled o Factory weighed, vapor tight packaging

Rubber Adhesive

o Factory Installed Adhesive o Will not dry or harden o Adhesion to virtually any surface

Calculation Formula Example

Use our online [CC Moisture Calculator](#) or use the following example: : 5.8 gram weight gain at 68 hours and 15 minutes:

$$10 = \frac{5.8 \times 117.707}{68.25}$$