

CALCIUM CHLORIDE TESTING (ASTM F1869): PROCEDURE & INTERPRETATION

OVERVIEW

The calcium chloride test measures the moisture vapor emission rate (MVER) at the surface of a concrete slab. While older than RH testing, it remains widely used for resinous coating applications.

Test Procedure Summary

1. Mechanically prep the test area to provide bare concrete.
2. Place pre-weighed CaCl₂ dish into the sealed test dome.
3. Allow 60–72 hours of exposure.
4. Remeasure dish weight and calculate lbs/1000 sq ft/24 hr.

Interpreting Results

- Coatings: ≤ 3 lbs.
- Hyper Bond & Hyper Crete: Up to 9 lbs.
- MV 2112 Moisture Mitigation Primer: up to 20 lbs.

Advantages & Limitations

- Pros: Simple, inexpensive, widely understood.
- Cons: Measures only surface moisture; weather & HVAC greatly affect results.

Best Practices

- Conduct in climate-controlled conditions.
- Use multiple tests across the area.
- Do not test over coatings, adhesives, sealers, or contamination.
- Combine with RH testing when possible.