

Comparison of Material Costs and Labor Hours for Floor Moisture Tests

(Based on a 10,000 sq. ft project requiring 13 moisture tests)

Test Method	Calcium Chloride Moisture Vapor Emission Rate Testing ASTM F1869	Rapid RH™ with Smart Sensor Technology ASTM F2170
Materials Needed	MVER kits; surface grinder, vacuum, scrapers, precision gram scale	RapidRH Sensors and Reader; 3/4-in. drill bit and drill; vacuum and brush.
Prepare test locations	Clean the floor: scrape and grind to remove debris and make a clean surface 1 hour 5 minutes	---
Prepare the test	Check integrity of sealed calcium chloride packages. Open packages, weigh dishes, record weight, date, and time. 1 hour 5 minutes	---
Place the test	Remove tape from dishes, remove cover and invert, place on concrete, install domes, press to seal, check if seal is airtight. 1 hour 5 minutes	Drill holes Vacuum dust Insert 1 hour 5 minutes
Protect the test	Install CAUTION tape, build wooden frame, or otherwise mark to avoid damage 2 hours	---
Obtain results (after required 72 hours)	Check air tightness of seals; cut open domes, retrieve dishes, invert covers, re-tape, weigh dishes, and calculate results. 2 hours 10 minutes	Insert Reader Press button 3.5 minutes
Cleanup	Scrape sealant from concrete; dispose domes, dishes, used calcium chloride, sealant. 20 minutes	Trowel one tablespoon patching compound into each hole. 7 minutes
Material costs for 13 tests	\$147.95 (13 kits)	\$600 (includes 15 Smart Sensors + one Reader)
Total time required to obtain readings on first 13 tests	72 hours	2 hours
Total time required to obtain additional testing data	78.5 hours	10 minutes
Material costs to obtain additional testing data	\$147.95 (13 kits)	---
Total Time	158 hours 15 minutes	3 hours 25.5 minutes

For more information on relative humidity testing go to www.rapidrh.com.

