

Rh Probe Installation and reading Guide

ASTM F2170-11 Checklist 08-10-2013



	of Initial eview:	Location of Work Performed:	Day	Temp	Rh	Time	
			Monday				
			Tuesday				
			Wednesday				
Proje	ect: #		Thursday Friday				
	✓ Verify probe is from a manufacture with NIST traceable calibration equal to or better than ±2% Rh.						
✓	Hole liners are made of plastic or non-corroding metal tubes with a diameter NOT more than (0.04in or 1mm) greater than the probe diameter and sufficient length to seal the hole to the desired depth.						
\checkmark	Verify that the probe has been calibrate	d within 30 days before use					
✓	Conditioning: Concrete floor shall be at SERVICE temperature & occupied air space above the floor slab shall be at service temperature and humidity for at least 48 hrs before making rh measurements.						
√	Number of tests: 3 for the first 1,000SF and 1 per additional 1,000 SF						
Test locations around the entire floorobtaining readings for different conditions							
✓	Test no closer than 3'-0" from slab edge.						
✓	Determine the appropriate depth (For each location separately): Slab drying from one side: 40% from top Slab drying from two sides: 20% from top				Too shallow of a hole will yield drier results and too deep will yield a wetter result.		
✓	The main purpose of the liner is to isolate the very bottom of the concrete at the bottom of the drilled hole at the specified depth to provide the correct environment to perform the testing, and is to seal the sidewalls of the concrete off from the exposed concrete at the bottom of the liner, and seal at the concrete surface to prevent moisture from migrating out drilled sidewalls & out the surface, which would provide a "drying out" mechanism for the concrete.						
✓	Drilled hole Procedure (90°): (ALWAYS VERIFY PROCEDURE WITH MANUFACTURE) 1. Use a rotary hammerdrill to the required depth – drill bit shall not exceed exterior diameter of hole liner by 0.04in or 1mm. Hole shall be drilled dry! 2. Vacuum holewire brush holeVacuum holewire brush holeVacuum hole. (It is imperative to remove ALL dust, as dust will contaminate the sensor and render them inaccurate) 3. Insert hole liner to bottom of hole. The sensing elements of the probe shall be located within 5/8" ± 1/8" of the base of the liner & the probe sealed or gasketed within itself & the liner such that the volume of air being measured cannot escape upward beyond 5/8" ± 1/8" within the probe itself or the liner. 4. Allow 72 Hours to achieve equilibrium within the hole before making any measurements.			er by A t cut no	ONLY DRILL ONE HOLE AT A TIME! A two-fluted carbide bit will tend to cut the hole out of round, which will not allow for a proper sealuse a four-fluted bit.		
✓	Cast hole Procedure: (ALWAYS VERIFY PROCEDURE WITH MANUFACTURE) 1. Secure probe liner to formwork or reinforcement to avoid displacement during concrete installation. 2. Place a solid rod into the liner (slightly smaller) locating the bottom of the rod at the correct elevation. 3. Measurements can take place as soon as the concrete hardens (clean solution pH 12 prior to probe).			evation.			
✓	 Remove top cap/rubber stopper. Connect the probe. Allow probe to reach temperature equ 			rium			
Additional Comments:							
Sign	& Date:						



