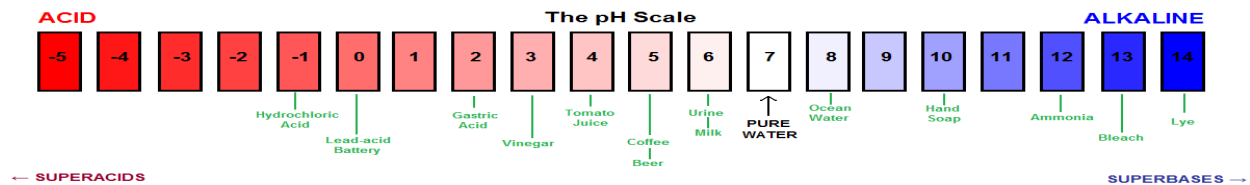


PH TESTING FOR CONCRETE SLABS

Garage Force recommends testing concrete floors for PH levels before coating.

A concrete slab that is carbonated and ready to receive a flooring adhesive **should have a pH of about 7 or 8**. This means the surface of the concrete has had minimal moisture vapor movement. A PH that is out of spec could be a result of high moisture. Excessive moisture vapor movement will bring additional hydroxides (alkalis) to the surface and will cause the PH level to increase. Alkaline salts in solution with moisture, which exude from concrete, or which work their way up from the earth in concrete on grade or below grade, have a tendency to destroy satisfactory bonding of adhesives by sheer physical displacement. They can leave unsightly salt deposits at the seams of sheet materials and joints of tiles.



Testing PH level

Using PH Test Strip or PH Pencil

1. Clean the concrete to bare concrete. This means to clean the concrete to a residual free, dust free, porous surface.
2. Do not dig down into the concrete below the carbonation layer.
3. Place a 1 – 1-1/2-inch puddle of distilled or de-ionized water on the surface of the cleaned concrete.
4. Allow the water to stand for one minute.
5. Place the pH strip into the water and allow to soak the water for about 15 seconds. Compare the color of the pH strip with the color chart to determine the pH.
6. If using a PH Pencil Stroke the surface with the pencil. Wait approximately 15 seconds and compare the resulting color change with the color chart.
7. Record and report results.

Using electronic digital pH meter:

1. Clean the area of concrete to be tested.
2. Place several drops of distilled or deionized water on the concrete surface, forming a puddle approximately 1" in diameter.
3. Allow water to sit for 60 seconds prior to testing.
4. Place pH electrode into puddle for 10 seconds.
5. Record pH reading on meter's digital display.
6. Record and report results.

What do you do if your pH readings are high? First and most important, make sure your moisture testing was done correctly. High pH and high moisture vapor emissions are very common and travel together. If you're using a calcium chloride testing procedure it is extremely easy to end up with false positives (low readings) unless you follow the ASTM F-1869 protocol to the letter. It is much the same with the in-situ RH probe; if your equipment is out of calibration or you fail to follow the ASTM F-2170 protocol, you can get incorrect readings.

Always document readings for warranty purposes.