

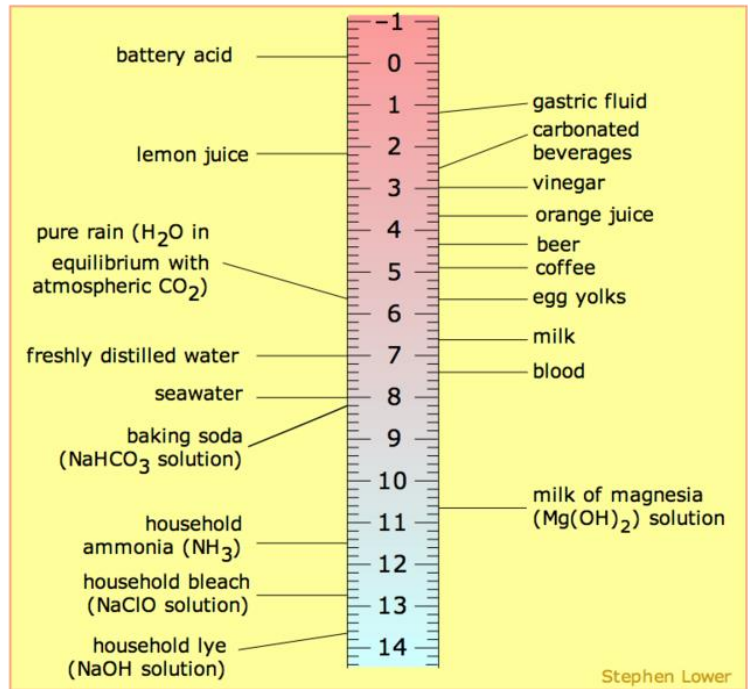
**PH of Concrete and Applying ROCK-TRED Polymer Systems**

ROCK-TRED recommends testing the PH level of the concrete’s surface prior to installing our systems. Testing the PH level is a quick, easy and inexpensive test that yields good information on the concrete slab’s surface and can save a contractor from potential issues and job failures.

PH is measured on a scale from 1 to 14. The low end of the scale represents an acidic condition while the high end signifies an alkaline or basic condition. A PH of 7 indicates a neutral level which is the ideal condition for applying ROCK-TRED polymer coatings.

The PH scale to the right shows many common items and their corresponding PH levels. Since concrete is a porous substrate it will absorb what comes into contact with it. The PH of the concrete’s surface will reflect the PH of substances that it has absorbed. If the PH of the concrete slab is not close to 7-8 the long-term bond of the coating to the substrate may be jeopardized

PH SCALE WITH COMMON PH LEVEL EXAMPLES



PH PENCIL TEST KIT



To field test the PH level of concrete on a jobsite ROCK-TRED offers PH Pencil testing kits for sale. These are portable and inexpensive testing tools that are quick and easy to use. The steps for obtaining an accurate PH Pencil reading on a concrete surface are as follows:

1. Wet the surface of the concrete with distilled water. Tap water may distort the results.
2. Mark the wetted surface with the PH Pencil.
3. Wait approximately 15 seconds and compare the color of the pencil mark with the color chart provided with the PH Pencil kit to determine the PH level.

When testing a concrete substrate's surface for PH levels there are a couple key points to remember to avoid false readings. First, fresh concrete will by nature have a very alkaline or high PH level – often as high as 12. Over time, with as long as 2 years of exposure, the PH level at the surface of the concrete will typically reduce down to a level between 7-9 if there are not mitigating factors such as surface contamination. Second, if you test the PH level of a newly prepared concrete surface immediately after it has been diamond ground or shot-blast the PH level will be elevated.

Once you have determined the PH level of the concrete's surface you can plan your work accordingly. Ideally, the PH of the concrete you are coating will be a neutral 7. Some variance away from neutral is acceptable so if PH readings of 6-8 are found it is typically considered OK to proceed with a coating application. For more extreme conditions farther up or down the PH scale the substrate should be neutralized prior to applying products. ROCK-TRED's ROCK-POWER detergent is a very good surface neutralizer. If the PH of the concrete's surface is only off neutral by a point or two in either direction it can often be brought to neutral by scrubbing with diluted ROCK-POWER and rinsing with clean water. For concrete that is severely acidic or alkaline from exposure to chemicals stronger means may be needed. If highly acidic the surface can be scrubbed with a 10%-15% dilution of caustic soda, rinsed with clean water, scrubbed with ROCK-POWER, rinsed with clean water and then rechecked. If highly alkaline the surface should be scrubbed with a 10%-15% dilution of phosphoric acid, rinsed with clean water, scrubbed with ROCK-POWER, rinsed with clean water and then rechecked. These procedures may need to be repeated to neutralize extremely contaminated concrete. When working with chemicals follow all safety recommendations and dispose of the waste properly.