CONCRETE pH TESTING FOR COATING AND FLOORING APPLICATIONS

OVERVIEW

Concrete is naturally alkaline, typically ranging from pH 12–13 when newly placed. As it cures and carbonates over time, surface pH gradually decreases. Most coatings and flooring systems require the substrate to fall within a safe pH range (commonly pH 6–9) for proper adhesion and long-term performance.
A pH test provides a fast, inexpensive method to confirm substrate suitability before installation.

Surface Preparation

- Test only on clean, bare concrete.
- Remove coatings, dust, sealers, curing compounds, and contaminants.

How to Perform the pH Test

- Lightly wet a small area of concrete with distilled or deionized water.
- Allow water to sit for 60 seconds to dissolve surface salts and alkalinity.
- Press pH test strips or a calibrated digital pH meter into the moistened surface.
- Compare the strip color to the chart or read the meter value.
- Repeat in multiple areas, especially near joints, low spots, and moisture-prone zones.

Interpretation of Results

- pH <6- Acidic; Neutralize by washing surface using concrete deagreaser
- pH 6–9- Acceptable for most coatings/flooring
- pH 9–10.5- Elevated alkalinity; Further evaluation recommended; may require additional surface prep
- pH >10.5- High alkalinity; potential adhesion risk; Neutralize by etching surface followed by cleaning

High pH may indicate:

- Moisture intrusion
- Poor curing
- Contamination
- Lack of carbonation
- Surface laitance

Best Practices

- Use fresh, high-quality pH test strips (wide-range recommended).
- Clean the surface thoroughly before testing to avoid false readings.
- Record results from each location for documentation.