



# Incompletely Formed Water-Based Acrylic Sealers



## Necessary Supplies:

- Short nap, solvent resistant roller cover & long handle extension
- Solvent resistant metal roller pan
- 2" solvent resistant brush
- Xylene compatible hand pump sprayer
- Xylene (1 gallon per 300 ft<sup>2</sup> of concrete surface)

Water-based acrylic sealers and cure & seals form a continuous membrane through a process known as “coalescence” in which water evaporates, allowing acrylic particles to come together as a coating. As a result, water-based products are particularly sensitive to environmental conditions that inhibit evaporation, like low temperatures and high humidity.

A minimum ambient air and substrate temperature of 50°F (10°C) and rising is required until coalescence has occurred (up to 6 to 8 hours). High humidity will also hinder evaporation, requiring an ambient air temperature that is at least 5°F (3°C) above the dew point (a measurement of the amount of moisture in the air).

If either of these conditions are not met, the coating can fail to fully form. The results can vary significantly depending upon the individual circumstances. A mildly damaged coating may be “milky” in appearance, and can often be repaired. A terminally damaged coating will fail to form at all, leaving discrete acrylic particles on the substrate surface with the appearance of powdered sugar.

## Correction Process:

First, determine how badly damaged the coating may be. Wipe your hand across the surface. If there is a powdery residue, it’s not likely this coating can be salvaged. Attempt the following repair process on a small test patch. If it’s not effective, removal and reapplication will be required.

Next, observe the coating appearance. If it appears somewhat milky, it may be possible to repair (though the success of any repair will depend upon the specific circumstances of your situation).

This is **not** a method for removing sealer from con-

crete. It is intended solely to rectify deficient aesthetics.

### Step 1

Apply Xylene to the problem area at a rate of 300 ft<sup>2</sup> per gallon. Work in manageable sections that can be reached with a handled roller. Allow the Xylene to dwell for up to 10 minutes until the sealer has softened.

### Step 2

Using the roller and handle extension, dampen the roller cover in Xylene and work the sealer in a back and forth manner similar to painting. Roll evenly and consistently, being careful not to leave a random roller pattern or entrap air in the sealer.

### Step 3

Working in manageable and reachable sections, continue this process over the entire repair area. A 2” solvent resistant paint brush can be used to remove excess sealer from deep recesses and joints.

### Step 4

Allow the Xylene to evaporate and the sealer to dry. Your results will vary depending upon your specific case. Further improvement may be possible by repeating steps 1 through 3.

## Tech Tips:

- Work in manageable size areas that you can reach with a long handled roller.
- This method works best on a cool, overcast day with no wind.
- An uneven film of acrylic will leave darker areas where acrylic is over-applied. A thin even film or coating is preferred.