

## CONCRETE PREPARATION

Inspect the concrete and access the cleaning preparation required

- Clean the concrete surface using Alchemco ACR Concrete Cleaner.
- For surfaces with heavy contaminants and greases, Alchemco ACR Emulsifying MUST be used.
- For ALL concrete surfaces NOT absorbing water, Alchemco ACR Etch may be used.
- **PLEASE NOTE:** After the use of liquid cleaners, Alchemco recommends that all surfaces and cracks be blown out using a jet air compressor.
- Power wash the surface/walls until surface is void of ALL contaminants and debris
- Once dry, jet air compressor the surface ensuring that all cracks are void of ALL dust and debris.

## CRACK PREPERATION

To identify through cracks, a flood/load test can be performed

*(If cracks appear to be through cracks, sealing the underside/soffit must completed prior to application).*

- Cracks must be identified as either MOVING CRACKS or DEAD CRACKS.
- You can identify suspected moving cracks by placing epoxy on both sides of the crack and adhering a glass strip to the epoxy, allow to dry and observe if the glass cracks. If the glass cracks, this would suggest you have a moving crack. This method may take up to 48 hours before you see the glass crack. Clearly mark or map out whether cracks are moving or dead.

**PLEASE NOTE:** ALL crack repairing procedures will occur at the end of the application.

### CRACK SMALLER THAN 2MM

- Depending on which product system is selected, TechCrete 2500, All BridgeDeck product lines or all CretePro product lines, apply product using your spray rig utilizing a fine tip nozzle directly into ALL cracks *(Avoid over spraying)*.
- Where access is available, seal the underside (Soffit) of ALL cracks greater than 2mm using Alchemco Duratite Repair Grout or approved product by Alchemco.
- For split slabs and through cracks and concrete on metal deck with-in 8 to 10 minutes from spraying the cracks, in a separate spray rig utilizing the same fine tip nozzle, spray ALL cracks with Alchemco Crack Accelerator.

### CRACK GREATER THAN 2MM

- Depending on which product system is selected, TechCrete 2500, All BridgeDeck product lines or all CretePro product lines, apply product using your spray rig utilizing a fine tip nozzle directly into ALL cracks *(Avoid over spraying)*.
- With-in 1 to 2 minutes from spraying the cracks, in a separate spray rig utilizing the same fine tip nozzle, spray ALL cracks with Alchemco Crack Accelerator.

## TECHCRETE APPLICATION

### APPLICATION:

- Ensure the concrete surface is clean and dry before application.
- Apply TechCrete 2500 using your spray rig at the rate of 200SQF per Gallon (1000 SQF per 5g pail, 10,000SQF per 55g drum). It is advised that mark out your work area in 1000SQF intervals, you
- DO NOT allow product to pool, spray in a methodical even motion ensuring that ALL concrete appears wet/saturated (You may overlap your spray pattern).

### WATER MISTING:

- After 1 to 1.5 hours, or once the surface is touch-dry, mist water using a separate spray rig at the same rate as the TechCrete application (200 SQF per gallon).

## CRITICAL APPLICATION NOTE FOR VERTICAL SURFACES:

### TWO-PASS APPLICATION:

- Apply the first pass of TechCrete and allow it to dry.
- Apply the second pass and allow it to dry completely.

### WATER MISTING:

- Mist water over the treated area at the same rate (200 SQF per gallon) and allow it to dry.

### FINAL ABSORPTION:

- Once misting is complete, let the application absorb fully into the concrete overnight.

## APPLICATION OF ACRtec ACCELERATOR (NC100, Surface Accelerator, SAA Concentrate) (OPTIONAL)

Alchemco Accelerators are calcium concentrates in liquid form, it is advised that a test area be selected (4' x 4') in an inconspicuous area of the project to ensure Accelerator whitening does not occur. If Accelerator whitening is observed, please contact the Alchemco Technical Development or your local Alchemco sales representative.

- Ensure the concrete surface is clean and dry before application.
- Apply Accelerator using your spray rig at the rate of 200SQF per Gallon (1000 SQF per 5g pail, 10,000SQF per 55g drum). It is advised that mark out your work area in 1000SQF intervals, you can either use tape or simply place a new pail of product at your next gridline.
- DO NOT allow product to pool, spray in a methodical even motion ensuring that ALL concrete appears wet/saturated (You may overlap your spray pattern).

### WATER MISTING:

- After 1 to 1.5 hours, or once the surface is touch-dry, mist water using a separate spray rig at the same rate as the TechCrete application (200 SQF per gallon).

## CRITICAL APPLICATION NOTE FOR VERTICAL SURFACES:

### TWO-PASS APPLICATION:

- Apply the first pass of TechCrete and allow it to dry.
- Apply the second pass and allow it to dry completely.

### WATER MISTING:

- Mist water over the treated area at the same rate (200 SQF per gallon) and allow it to dry.

### FINAL ABSORPTION:

- Once misting is complete, let the application absorb fully into the concrete overnight.

## CRACK REPAIR PROCEDURES (TO BE COMPLETED AFTER SPRAYING)

- **Moving Cracks Smaller Than ½ Inch:** Apply ACR PU24.
- **Moving Cracks Greater Than ½ Inch:** Insert the correct-size backer rod about ¼–½ inch into the crack. Cover with ACR PU24.
- **Dead Cracks Greater Than 2mm:** Apply ACR L43.
- **Dead Cracks Smaller Than 2mm:** No further action is required.

## FLASHING UPTURNS, DOWNTURNS, AND CHANGES IN PLANE

1. **Create a 45° cant strip at the horizontal-to-vertical interface using PU24 Sealant. Important:** If using silicone-based products, apply ACR Polyseal Sealant S+. Do not combine polyurethanes with silicones, as they are incompatible.

### Complete the flashing by using ACR PU44 Liquid Flashing:

- Extend the flashing 4 inches along the horizontal plane from the wall.
- Extend it 4 inches up the vertical plane from the floor.
- Allow to cure for 24 hours.
- Note: If using silicone-based flashing, use ACR PolyMembrane Flashing.

### Alternative Flashing Option:

1. Duratite MLastic, a single-component cementitious waterproofing coating, can be used as a flashing alternative.
2. Use Duratite Mortar Repair as the cant-strip material with MLastic.
3. Consult Alchemco's Technical Department for detailed instructions when using MLastic.

## EXPANSION JOINTS

Use Alchemco **ChemcoSeal** or **ChemcoPrene** expansion joint systems for all applications. Refer to the TDS or consult with your Alchemco Sales Representative or Technical Department for available sizes and guidelines.

**Note:** Alchemco offers many other accessory products that may be specified but are not listed in these guidelines. Contact your local sales representative or Alchemco's Technical Department at [project@alchemco.com](mailto:project@alchemco.com) for additional information.

