

TECHNICAL BULLETIN

Procedures for Repairing Stucco

INTRODUCTION

Stucco is a durable but rigid material and is susceptible to some degree of cracking. There are numerous causes for stucco cracking including building movement or drying shrinkage cracks. Some cracking may be very small, hairline cracks (1/32" or smaller) and represent more of an aesthetic nuisance. Other cracks may be larger (greater than 1/32") and could present issues with moisture intrusion and contribute to blistering and/or peeling of finishes. Other repairs may be required based on corroded trim accessories or lack of control joints.

REPAIRING CRACKS

There are several methods to repair cracks. To select the correct method, decisions should be based on the size/severity of the cracks and their root cause. For all procedures, thoroughly clean all surfaces that will be coated and allow to dry. Protect surrounding areas that may be subject to overspray, drips and those not intended for contact with new materials. Please reference Technical Bulletin Procedure for Cleaning Finish & Removing Efflorescence in EIFS and Stucco for more information.

FOR HAIRLINE CRACKS, UP TO 1/32"

1. Apply SikaWall® Elastomeric Coating in two coats, approximately 16 mils wet film thickness each. Refer to SikaWall Elastomeric Coating Product Data Sheets for complete application information.
2. Apply SikaWall Elastomeric Coating to architectural breaks or over the entire elevation to minimize aesthetic differences.

CRACKS GREATER THAN 1/32" AND UP TO 1/16"

1. For limited number of cracks, embed 4" – 6" wide strips of SikaWall SRT Mesh or Senergy Flexguard 4 Reinforcing Mesh in Senergy Alpha or Alpha Dry Base coat, centering the application over the cracks and feathering the base coat at the edges. If the cracks are widespread throughout an area, resurface the entire area per Technical Bulletin *Procedure for Resurfacing Stucco*.
2. Once base coat is dry, apply new finish.

Alternately:

1. Apply Sika Thorocoat 748 patching compound, completely filling the cracks. For small cracks up to 1/16", apply patching compound using a small damp sponge with slight hand pressure to fill the crack. For larger static (non-moving) cracks 1/16" to 1/4" in width, rout out the crack to 1/4" width. Fill with Thorocoat 748 using a putty knife or a bulk caulking gun. Float with a trowel to remove excess Thorocoat 748. Allow to dry for minimum 4-hours. Apply a second layer of Thorocoat 748 and smooth the surface. Allow to dry for minimum 12-hours.
2. Apply SikaWall Elastomeric Coating in two coats, approximately 16 mils wet film thickness each. Refer to the SikaWall Elastomeric Coating Product Data Sheets for complete application information. Apply SikaWall Elastomeric Coating to architectural breaks or over the entire elevation to minimize aesthetic differences.
OR
Resurface the entire area per Technical Bulletin *Procedure for Resurfacing Stucco* after step 1 above.

BLISTERED FINISH

Blistering or bubbling of stucco finish is often caused by water that has gotten behind the finish. Prior to repairing damaged finish, a root cause analysis is needed. Deficiencies must be corrected prior to repairing finish, or the blistering and bubbling may reoccur. Finish texture and color should be determined prior to application.

1. Thoroughly clean all surfaces that will be repaired and allow to dry. Reference Technical Bulletin Procedure for Cleaning Finish & Removing Efflorescence in EIFS and Stucco for more information.
2. Remove blistered finish with a scraper or other tool to sound adjacent finish.
3. Mask off surrounding area that is not to be refinished
4. If the stucco is damaged under the blistered area, remove any weak, loose or scaling stucco with a scraper or wire brush to a uniform depth. Apply SikaWall Stucco Bond per Product Data Sheet to the repair area. Apply SikaWall Stucco Base Concentrate or SikaWall

Stucco Base Sanded per product bulletin over the Stucco Bond level with the adjacent stucco. Moist cure the patch and allow to cure for 6 days.

Note: For a seamless repair, skim the existing finish with SikaWall Stucco Surface Leveler, Senergy Alpha or Alpha Dry Base Coat to fill in the texture and provide a flat surface for new finish application. For aesthetic reasons, resurfacing should be terminated at a control joint, change in plane or change in elevation. Allow the base coat to dry.

5. Apply pre-selected Senergy Finish using a stainless-steel trowel to the thickness of the largest aggregate in the finish. Scrape finish to a uniform thickness, then float the finish.
6. Remove masking tape before the finish is dry. Touch up edges with a small paint brush. Allow finish to dry.

ADDING CONTROL OR EXPANSION JOINTS

In stucco applications with few or no control joints, continuous straight line vertical or horizontal cracks through the stucco would be a sign of stress relief and may indicate a place where a joint originally should have been incorporated. This could be in the form of a control joint accessory (to break up stucco into acceptable size panels) or a 2-piece expansion joint accessory (a slip joint that would accommodate movement). Joint accessory should have grounds appropriate to the existing stucco thickness.

1. Remove stucco to a minimum width of 4" on each side of the crack, exposing the lath to permit wire tying the new joint accessory into place. Ensure the existing lath is in acceptable condition for the repair.
2. Cut the lath where the new joint accessory is to be installed.
3. Repair any damage to the water-resistive barrier that may have occurred during the steps above.
4. Wire tie the new joint accessory as per ASTM C1063 (Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster), centering the joint accessory over the cut in the lath. Set the joint terminations in sealant to prevent water penetration.
5. Apply Stucco base flush with the joint accessory and existing stucco. If existing stucco is 3/8" to 1/2" thick, apply a single pass of Stucco base to level with the existing stucco. If existing stucco is greater than 1/2" thick, apply a scratch coat of Stucco Base, followed by a brown coat of Stucco base once the scratch coat is firm enough to hold the brown coat (double back method). Do not exceed 7/8".
6. Moist cure the new stucco application and allow to cure for 6 days.
7. Apply Alpha or Alpha Dry Base Coat and SikaWall SRT Mesh or Senergy Flexguard 4 Reinforcing Mesh, working from the new joint to a natural break or architectural feature. Allow to dry.
8. Apply Senergy Finish.

CORNER BEAD OR OTHER TRIM ACCESSORY REPLACEMENT

For damaged or rusting corner bead or other trim accessory replacement, the following general steps can be followed:

1. Identify locations for corner bead or other trim accessory replacement. Mark the areas for stucco removal. It is recommended to remove stucco a minimum of 6" above and below extent of damaged corner bead and laterally a minimum of 4" from corner in each direction.
2. Remove the damaged corner bead and the stucco down to the lath layer, enough to permit wire tying the new corner bead section into place. Ensure the existing lath is in acceptable condition for the repair.
3. Repair any damage to the water-resistive barrier that may have occurred during the steps above.
4. Install replacement corner bead and wire tie to lath. Set the ends of replacement corner bead in sealant. Verify the alignment of the new corner bead with corner beads above and below repair to provide a straight corner.
5. Apply Stucco base, filling behind the corner bead completely. If existing stucco is 3/8" to 1/2" thick, apply a single pass of Stucco base level with the existing stucco. If existing stucco is greater than 1/2" thick, apply a scratch coat of Stucco base, followed by a brown coat of Stucco base once the scratch coat is firm enough to hold the brown coat (double back method). Do not exceed 7/8".
6. Moist cure the new stucco application and allow to cure for 6 days.
7. Apply Senergy Alpha or Alpha Dry Base Coat and SikaWall SRT Mesh or Senergy Flexguard 4 Reinforcing Mesh, working to a natural break or architectural feature. Allow to dry.
8. Apply Senergy Finish.

CONSIDERATIONS AND CONDITIONS:

- Please note, repairs may be visible after completion since matches to existing finish texture and color may be difficult. Isolated crack repair is functionally effective, but the work may be apparent on the wall along with trim accessory replacement. Resurfacing of the elevation or a portion of the elevation to an architectural break may be necessary to obtain the best possible appearance. Please reference Technical Bulletin *Procedure for Resurfacing Stucco* for more information.
- A thorough pre-construction evaluation, including test cuts at selected locations, is recommended to fully evaluate the cause and extent of any visible distress. Where underlying assembly or substrates are found to be in unacceptable condition or if structural movement caused cracks to form, more extensive repair may be needed. A third-party professional should be involved

to determine the extent of any underlying damage and make recommendations for repair.

- Perform adhesion testing of new base coat, finish or coating materials to existing surfaces to ensure bond integrity. Please reference Technical Bulletin *Basics of Conduction Field Adhesion Testing* for more information.
- For any procedures requiring removal to the substrate, advise your design team when application of AWRB is needed.

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