

TECHNICAL BULLETIN

Application of Channeled Adhesive CI Design in Elevated Temperatures

INTRODUCTION

When hot weather conditions are present, special consideration must be given to the application of Alpha Base Coat and Senergy air/water resistive products. The accelerated reaction rate of Portland cement at ambient temperatures above 90 °F can lead to rapid stiffening, loss of workability and premature drying of the adhesive. Care must be exercised and the recommended guidelines for hot weather application followed.

SENERGY ALPHA BASE COAT MIXING

1. Keep all materials in a cool, shaded area to avoid elevated product temperatures.
2. Prepare mix in a container that is clean and free of foreign substances. Do not use a container which has contained or been cleaned with a petroleum-based product.
3. Use a field scale to measure the Type I, II Portland cement. Containers used to measure water should be marked in ounces.
4. Mix the contents of the Alpha Base Coat pail with a low speed drill and mud paddle until thoroughly blended. Split the 60 lb. pail of Alpha Base Coat into two equal parts of 30 lbs. Measure and mix 20 lbs. of Type I, II Portland cement with 30 lbs. of Alpha Base Coat. Slowly add the Portland cement in small increments, thoroughly mixing to a homogeneous consistency after each additional increment.
5. Let mixture stand for 5 to 10 minutes, then remix for 1 minute. If consistency is too stiff, retemper and remix at slow speed for 30 seconds before use. To adjust workability up to a maximum of 32 oz. of clean, potable water may be added per 50 lbs. of the Alpha Base Coat mixture. The consistency of the final mixture should not be runny or fall off the trowel when inverted.
6. Additives are not permitted.
7. Close container when not in use.
8. Clean tools with soap and water immediately after use.

NOTE: Ensure that hot water is not used to retemper the mixture, allow the hose to run for a few minutes to discharge hot water from the line.

SENERGY SENERSHIELD-R/-RS/-VB APPLICATION

Each application layer of the selected Senergy air/water resistive barrier must be allowed to completely dry through prior to adhesion of EPS rigid insulation board. Avoid applying more than the recommended wet film mil thickness, as this can lead to drip marks and extended drying time.

SENERFLEX CHANNELED ADHESIVE CI DESIGN WALL SYSTEM APPLICATION

1. Apply to solid surface of insulation board using a stainless-steel trowel with ½" x ½" (13mm x 13mm) notches spaced 2" (50.8 mm) apart, with the notches installed vertically (parallel to the 2" (50.8 mm) dimension).
2. Immediately adhere boards once the Senergy air/water resistive barrier coated substrate is completely dry. Lightly tamp the entire surface with a float to ensure complete contact between adhesive and substrate. Exercise care not to press the EPS board too hard as this can cause the ribbons to flatten and become too thin or smear together blocking the drainage channel.
3. Allow application of EPS insulation board to dry (normally 8 to 10 hours) prior to application of Alpha Base Coat and Senergy Reinforcing Mesh.

HELPFUL TIPS & REMINDERS

Keep these facts in mind when you are applying Alpha Base Coat and Senergy Air/Water Resistive Barriers in hot climates:

1. The setting time of Alpha Base Coat is accelerated as temperatures increase. The ambient temperature and that of the base coat, Portland cement and water will affect the setting time of the mixture.
2. Store Portland cement in dry, clean location. Remove any hard lumps present in the cement prior to use.
3. The cure time of the Senergy air/water-resistive barriers is reduced or accelerated as the temperature increases.

Elevated temperatures can cause rapid drying and skinning of the product surface while the interior of the film is not completely cured nor developed its full strength. Care must be exercised to ensure each application layer is completely dry and cured through. Applications thicker than the recommended wet film mil thickness will take longer to dry. Adhering the EPS insulation board before the film of the barrier is completely dry can lead to poor adhesion or loss of contact.

4. Adhere the EPS insulation board to the substrate as soon as the adhesive application is completed to avoid premature drying or skinning of the ribbons. Avoid pressing the board too hard, as this can flatten the ribbons and cause smearing. Do not disturb the board once it is in place; adjusting the board can result in loss of adhesion.
5. Adding water to the Alpha Base Coat mixture is permitted up to 32 fluid ounces to adjust workability of the product in hot climates. The water must be clean, potable and measured using a container marked in ounces. Adding more than the maximum allowed water will prolong the set time and weaken the product's adhesive properties.
6. Do not use less than the recommended amount of Portland cement for mixing Alpha Base Coat.
7. Monitor extended weather forecast during the application and curing period so that you are prepared for any extreme changes.
8. Keep materials, both powder and liquids, in shaded or cool storage area until ready for use.
9. Construct tents to adequately enclose the entire application area to withstand external conditions such as high wind, rain, direct sunlight and extreme temperatures.