

NYC, SCA Crack Treatment & Fiberglass Reinforcement Procedure

Description:

The following procedure is to be used when designated in SCA specifications or when directed by a CMP representative. It is designed to stabilize and reinforce weak, chalky or distressed cement screeds, cinder fill, Gypsum or Light Weight concrete substrates that will not pass a minimum 72 lb. tensile pull test.

Always review the TDS (Technical Data Sheet) for each CMP product listed in this procedure for full application guidelines and limitations. Also, see the product's respective MSDS (Material Safety Data Sheet) for all handling, storage and safety requirements.

1) Substrate Preparation

- a. Shotblast and Vacuum the substrate if building access and substrate conditions permit.
- b. Diamond Grind and Vacuum if substrate conditions permit.
- c. Thoroughly vacuum the substrate when its condition will not allow grinding or blasting. Scrape any loose material and sand surface if possible. (Must be approved by a CMP representative)

Notes:

Hard sound concrete that can withstand shotblasting is normally not in need of the fiberglass reinforcement procedure. CMP's SCA approved, patching or leveling products can be applied per their respective TDS, once the specified surface preparation and crack repair are completed.

Never blast or grind a substrate believed to contain Asbestos or any surface treated with an Asbestos encapsulant. A licensed abatement contractor must complete all mechanical preparation of these surfaces. (Never use chemical cleaners or mastic removers on any substrate)

2) Crack Repair

- a. Chase existing cracks in cement screed or grout cap over cinder fill to a min. depth and width of ¼". Use a grinder with diamond V-Blade, dust shroud and vacuum attachment.
- b. Vacuum all chased crack thoroughly using a crevice tool.
- c. Apply CMP CM-10 crack mender into the crack until rejection and immediately top the repair with a heavy layer of CMP EB-Sand or dry, clean, fine sand of approx. 50-60 mesh.
- d. Allow the repair to cure for at least 20 minutes and then vacuum up any excess sand.

Notes:

All cracks must be Non-Moving. Never use this application on expansion or isolation joints.

Larger cracks up to ¼" can be pre-filled with CMP EB-Sand after chasing and vacuuming.

3) Fiberglass Reinforcement

- a. Double prime the substrate using CMP AS-100 primer.

Dilute the first application 3:1 Water to Primer. Pour out the diluted primer and disburse liberally with a soft exploded-tip broom. Work the primer into the surface leaving no puddles or bare spots. Allow the primer to dry (1-hr. min, 24-hrs. max.)

Dilute the second application 1:1 Water to Primer and apply in the same fashion Allow the primer to dry (2-hrs. min, 24-hrs. max.)

- b. Dilute CMP, PolyBond 1:1 with clean cool water.
c. Mix CMP, SR-P with the diluted Polybond at the rate of 5.5 quarts of liquid to each 50 lb bag.
d. Trowel the SR-P onto the substrate leaving enough material to cover the substrate.
e. Immediately place precut lengths of fiberglass mesh into the SR-P and use a steel trowel to bed the mesh into the wet material, overlapping all seams 1-2 inches. Place additional SR-P over the bedded fiberglass and trowel out to ensure complete coverage. Minimum application thickness should be 1/8” and no mesh should be visible. Allow the SR-P to dry 4 hrs. min. before patching or priming for self-leveling.

Note:

Use standard construction grade fiberglass reinforcement that is Alkali resistant has a weight of 4-6 oz. per sq. yd. Reinforcement should have gauze or Leno weave and a minimum thickness of .018”.

4) Depressed, Moving or Fractured Screed/Grout over Cinder Fill (Up to 25 sq. ft.)

- a. Remove small areas of cement screed or grout cap over cinder fill that are depressed, show signs of movement or that fractured to the point where crack repair would be impractical.
b. Remove loose crumbling cinder fill down to sound material or the structural slab and vacuum remaining material thoroughly.
c. Follow directions from step 3) Fiberglass Reinforcement but ensure a minimum SR-P application thickness of ¾ inch.
d. Repair the area back to the height of the original cap and finish with a second layer of fiberglass reinforcement that extends 6 inches over primed, surrounding cap.

Notes:

The very porous nature and irregular surface of the remaining cinder fill may make it necessary to apply the AS-100 primer with a pump or airless type sprayer. Use the same dilutions and apply the first coat to saturation. Work in with broom and leave no puddles or bare spots.

SR-P can be extended up to 50% by weight with clean 3/8 or 3/4 Bluestone to reduce material consumption or when application thickness exceeds 2 inches. Small holes less than 1 sq. ft. can be patched without extension or fiberglass reinforcement.

Contact CMP Technical for repairs that exceed 25 sq. ft.