CRETEFILL SPALL REPAIR

FROM THE MAKERS OF THE ASHFORD FORMULA AND THE RETROPLATE SYSTEM™

COMPREHENSIVE
Installation Guidelines

INTRODUCTION

Horizontal surface repair is common on slabs either elevated or on grade. Deterioration may be caused by corrosion of embedded reinforcement resulting in delamination and spalling. Other common causes include freezing and thawing deterioration, heavy fork lift traffic and chemical attack. After evaluating the level of deterioration, a plan should be developed including objectives and specifications for the repair. Steps for repairs should include layout, removals, edge preparation, mixing, bonding, placement, polishing and grinding the repaired areas, and have been included below as a step-by-step guide for use by field personnel.

PURPOSE AND METHOD OF REPAIR

The purpose of spall repair is to repair deteriorated concrete or repair damaged reinforcing steel, and replace the lost sections of the slab and bring the surface back to stronger than original condition. This method should be used for repairing any number of issues associated with structural slabs, exterior slabs on grade, balconies, and interior floors.

SURFACE PREPARATION

One of the most important issues associated with any kind of concrete repair has to do with the level of preparation surrounding the spall, crack, or other defective areas intended for repair. Sound the concrete with a hammer to determine if any delamination has occurred around the spalled area to be repaired. Mark the perimeter of the repair area. Saw cut, or use a hand or power chipping hammer around the perimeter of the repair at a depth of at least ½" and remove all the damaged concrete. Vacuum the entire area to remove all debris and dust. Make sure repair area is completely dry as the Urethane is slightly moisture sensitive and should not be applied to wet surfaces. Developing a good, sound, new concrete surface will guarantee that the Urethane repair material will adhere to the surrounding surface and no further delamination will occur. If exposed rebar is identified then the bar should be fully exposed and cleaned of damaged corrosion. The key point in developing a successful repair in any kind of slab is the attention to detail in the preparation of the deteriorated concrete. Poor preparation is the number one reason for callbacks.

MIXING AND PLACEMENT

Mix only the amount of material that can be used quickly. Pot life of the Urethane repair material is approximately 2 to 6 minutes depending on the product, temperature, and quantity mixed for the repair. Depending on the depth of the spalled or deteriorated area, you may choose to use the product without sand. Pour a small amount of mixed product directly into the cleaned and cut out area and allow product to cure. After product has cured, pour additional product on top until reaching the finished grade. If the spalled out area is large you may add 1½ to 2 parts sand to mixed product. Adding 2 parts sand to 1 part mixed product nets approximately 1.8 the amount of usable product. Sand filler should have minimal moisture content. Grit sizes from 12 to 60. In exterior applications, the use of dry silica sand will reduce discoloration from UV rays. Pea gravel can be used on very large spalls (fly ash can also be used as filler). Remember that this product is not intended for use where substrate movement is required.

GRINDING TO FINISH GRADE

Allow the product to set for 15 to 30 minutes or until it is hard prior to grinding. For best results, use a flexible grinding wheel. Grind smooth with a 7-inch wheel. Scraping or cutting may also be done with a sharp razor blade cutter. Cut as soon as product is set and not completely hard. Repair is now ready for traffic.

TECHNICAL SUPPORT

Technical information and assistance can be obtained by calling Curecrete Distribution, Inc. at 1.800.998.5664. Please visit our website, www.ashfordformula.com, for information on this and other available products.