4905 5 Min Crack Repair Guide

GUIDE DESCRIPTION

The procedures outlined in this guide are intended for the repair of non-moving cracks, and the relocation of moving cracks in a controlled manner that prevents unwanted cracking in toppings and overlayments. This guide outlines the procedures for repairing cracks using 4905 Crack Weld 5 Min.

PRODUCT DESCRIPTION

4905 Crack Weld is a 100% solids 2-component epoxy normally used for sealing of concrete and decorative substrates; however, the high viscosity, high strength, tenacious adhesion, and cold cure tolerance of the coating make it an excellent product for the repair of larger cracks. The fast setting formula is also ideal for repairing cracks within minutes for a quick turn-around time.

4905 Crack Weld 5 Min is a 100% solids 2-component epoxy with excellent low temperature cure profile, strength development, and strong adhesion to damp and dry concrete. Crack Weld 5 Min is formulated with a thixotropic rheology profile, which allows it to be used on larger cracks with a lower tendency for the epoxy to drop out the bottom of the slab where it would be wasted.

COVERAGE RATES* AND PACKAGING

4905 CRACK-WELD 5 Min	1/16” Crack, 4” Slab	80 linear ft/kit
	1/8” Crack, 4” Slab	40 linear ft/kit
	1/4” Crack, 4” Slab	19 linear ft/kit

*Assumes ideal volumetric coverage for 1-Gallon Unitized Kit
**Sold in 1-Gallon and 0.5-Gallon Unitized Kit

REPAIR OF CRACKS FROM 1/16” TO 1/4"

Preparation

Locate all cracks to be treated and mark with chalk if necessary prior to proceeding. Using a 1/4 ”-3/8” V-Shaped crack chaser, grind open the cracks. Remove all loose debri, dust, contamination, and bond-breaking material by vacuuming, pressure washing, and/or blowing with compressed air.

Crack must be free of standing water and visual moisture before proceeding further.

Mixing

Mix the 4905 components together at ratios listed on product label for 2-3 minutes using a spatula and a piece of fiberboard or cardboard. Fold the two components and kneed them together until the color is completely uniform. The pot-life of the material is ~30 minutes in small masses at 70°F. The pot life reduces as larger quantities of materials are mixed. Do not mix more material than can be used within the pot-life.

Application

Apply mixture into the crack by taking a small amount of material onto the spatula. Press material into crack and trowel the material until it is level with the surface. Work on small sections and mix small quantities of material to ensure that you have adequate working time. Once all desired cracks have been filled, allow material to reach a through-cure prior to sanding material. Use 80-150 grit sandpaper and a sanding pad to sand material down to an even level with the concrete.

Clean-Up

Clean up tools and splatter with lacquer thinner or epoxy remover if 4905 Crack Weld 5 Min has already cured. Clean hands and exposed skin with a citrus-based hand cleaner.

Cure Times

4905 will cure to a dry to touch state in less than 30 minutes, a hardened state within 1-2 hours, and full cure in 6 hours.

JOINT RELOCATION

To relocate a moving crack or functional joint to another location, repair the crack or joint as outlined above. When creating a new joint within 0-12" of the previous crack or joint, allow the epoxy to cure 1-2 hours so that it can develop sufficient strength to withstand stress along the bond-line.

For new joints greater that 12" from the previous crack or joint, the saw-cut can usually occur before, or within 24 hours of the crack repair provided that no additional stresses such as heavy rolling loads will be placed on the area.

Typically, new joints should have saw-cut depths of ¼ the depth of the slab. The cut must be of sufficient depth such that it becomes the weakest point in the slab.

New joints should be filled with a Polyurea or Flexible Epoxy Joint Filler to protect the joint from damage while allowing for normal movement.

ADDITIONAL CAUTIONS

- Do not force dry
- Coverage rates may vary
- Mask all areas that need protection
- Always wear protective clothing and equipment as required by OSHA and as necessary
- Read Material Safety Data Sheets before commencing work
- Store material at 50-70°F to prevent shortened pot-life due to excessive heat
- These materials are intended for use in substrates and environments >45°F.