Technical Data / Cyclospartic Crack Repair

PRODUCT DESCRIPTION

Cyclospartic Crack Repair is a two-component, solids, VOC Compliant, ultra low viscosity polyurea repair material that has the ability to cure in a wide range of temperatures. Its high compressive strength makes it a great choice for heavy traffic areas and those that are prone to damage due to falling objects.

PRODUCT APPLICATION

READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

SURFACE PREPARATION

Chase all cracks with a crack-chasing blade (v-shaped diamond) on a hand grinder to open and prepare the crack for filling. This will leave the crack at about a 1/4" wide and clean the sidewalls of the concrete. This is an essential step for long term adhesion of Cyclospartic Crack Repair to the concrete.

Oil, grease, etc. Could have seeped into the crack and if the edges are not chased out the material has minimal chances of staying in place. Chasing the cracks will also create a space that is large enough to support a "full body" of repair material and allow it to gain maximum strength.

Vacuum the chased-out cracks to remove any loose dust prior to filling with sand or Cyclospartic Crack Repair. Dry silica sand or utility sand can be used to fill in voids where the liquid filler would simply soak in down the crack. If using sand as a backer, always use your finger or tool to strike the sand off at about 1/4" down from the top of the substrate. The Cyclospartic Crack Repair will soak into the sand at the same time it is bonding to the concrete, creating a strong filler that will literally "weld" the concrete back together.
DO NOT USE PLAY SAND OR SAND WITH MOISTURE IN IT.

MIXING

Pre-mix both sides individually each day before combining.

Over a floor mat or garbage can, pour out equal amounts of Part A and Part B in two separate paper Dixie cups. Mix the two cups back and forth about 10 times, or for 10-15 seconds to combine and blend the components.
-or-
Using small, calibrated mixing containers, combine equal amounts of Part A and Part B and blend thoroughly with a paint stick or drill with paddle style mixer for about 10-15 seconds. Dry silica sand can be added to the mix to thicken it up, acting as both a filler to increase the volume and to lessen the chances of the material flowing and sinking into deep cracks.

Cyclospartic Crack Repair will react immediately upon mixing and should be placed within 1 minute to guarantee adhesion.

APPLICATION

Pour the mixed material onto the floor and over-fill cracks to ensure a level surface after grinding. If using Dixie cups for mixing, always pinch the top of the cup to create a small pour spout for better accuracy when pouring.

If sand is added to the mixture, it may be beneficial to use a putty knife to move the filler into place. Any material that is not “in the crack” is considered waste, as it will eventually be ground off to profile the Cyclospartic Crack Repair and the slab.

Spalling repair should only be attempted once the floor has been mechanically prepared with shotblaster or grinder. This will knock down the high spots in the concrete and begin the process of leveling the floor. Use a flat squeegee to spread the repair product evenly across the damaged area. The result will be a large, flooded area that can be ground flat once cured.
NEVER MIX MORE THAN 1 PART LIQUID (A + B) TO 1 PART SAND.

Re-profiling of the repair is always required before coating. It is ready to grind when it is resistant to fingernail marking. Grind the repair flush with the slab using a hand grinder, or planetary grinder and make sure the repaired area is smooth and level. It will be best to use the hand grinder on cracks, and the planetary grinder on spalled areas.

THINNING: None required.
CLEAN-UP: Acetone

EQUIPMENT RECOMMENDATIONS

SQUEEGEE: Use a flat squeegee to spread over pitted areas.

Performance Characteristics

TENSILE STRENGTH
METHOD: ASTM D412
TYPICAL VALUE: 4800

ELONGATION
METHOD: ASTM D412
TYPICAL VALUE: 6-8%

COMPRESSIVE STRENGTH
METHOD: ASTM C109
TYPICAL VALUE: 5600
W/SAND: 6200

BOND STRENTGH
METHOD: ASTM 882-99
TYPICAL VALUE: 2250

HARDNESS, DUROMETER
METHOD: ASTM D2240
TYPICAL VALUE: 67-72D

VICOSITY (MIXED)
TYPICAL VALUE: 25 CPS

TEAR STRENGTH
METHOD: ASTM D624
TYPICAL VALUE: -LB/MIL 489

ADHESION
METHOD: ASTM D4541
TYPICAL VALUE: >500 psi

PHYSICAL PROPERTIES

Resin Type	Cyclospartic Polyurea
Weight Per Gallon	9.9 lbs.
Solids by Volume	98%
Volatile Organic Compounds	<50 g/l**
Mixing Ratio	1:1 (Part A to Part B)
Pot Life	1-2 minutes
Hard Cure	10-15 minutes
Light Traffic	15 minutes
Full Traffic	30 minutes
Shelf Life	12 months
Safety Information	See SDS