

ROKLIN

SYSTEMS INCORPORATED

EMERGENCY REPAIR BULLETIN

Before



After



Always be prepared with **Roklin Quick Repair Products** for Concrete & Asphalt.

With Roklin's **FloMix** and **FlexSet** you can easily return damaged areas to service in less than 30 minutes.

- Complete repair quickly & economically
- Prevent accidents and injuries
- Avoid lawsuits
- Minimal prep required
- Reduce closure time
- Prevent damage from spreading
- Create a long-lasting repair
- Waterproof the damaged area
- No need to wait for the hot asphalt truck
- No need for expensive/heavy equipment.

Have a few 5-gal. kits of FloMix or FlexSet on hand at all times, so you can respond quickly and ensure the safety of roads and highways, parking areas, driveways, runways, sidewalks, etc.





Rokiln Systems FloMix Asphalt Rapid Repair

FloMix combines polymers with a specially treated aggregate to create a rapid setting, easy to apply, long lasting and durable asphalt repair. Repairs can be done in minutes, using 4 simple steps. Originally developed for the military as a rapid runway repair material, FloMix is an inexpensive alternative to traditional asphalt restoration procedures. FloMix rupture strength is 3 times stronger than concrete. This innovative, patented process provides a modern solution for an age old problem. FloMix repairs are sure to perform.

FloMix asphalt repair kit includes coated sand, bottles of “A” & “B” liquids, and a high traction topping. FloMix is mixed in its own bucket using an electric hand drill and/or a mixer. It reacts quickly after mixing, yet remains workable with a lute, squeegee or trowel for several minutes prior to thickening and setting. Repairs are completed in minutes and cure quickly with no shrinkage.

FloMix is virtually unaffected by the environment, with durability surpassing other repairs. It is Waterproof, Non-Flammable, and Unaffected by Gasoline, Diesel, Motor Oils, Jet Fuel, Anti-Freeze or De-Icing Fluids.

FloMix is also safe. The liquid polymers are odorless and non-flammable, with no fumes, caustics, acids, solvents, oxidizers, flammables, dust or heating. However, protective eye wear and gloves are required to prevent skin contact and to avoid sensitization to the liquid polymer.

Distributor

BREWER COTE OF ARIZONA INC® ‘THE PAVEMENT MAINTENANCE SPECIALISTS’
5226 W. MISSOURI AVENUE, GLENDALE, ARIZONA 85301



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FloMix can be applied in 4 simple steps

- Clean Surface - apply to stable, clean, uncoated, dry surface
- Prepare FloMix – Mix polymers and sand using pail mixer and/or heavy Drill
- Apply FloMix – Pour or Trowel FloMix over deteriorated area
- Add Topping Sand – and after FloMix sets up, open to traffic

Packaging – FloMix is available in a 5 gal Kit which is made up of equal volume of “A” & “B” Polymer, 30 lbs. of a 2-12 and 60 mesh blend of treated aggregate and a 12 lb. bag of treated Topping sand. The entire contents come in the 5 gal pail and the material is mixed with a ½ Hp drill. Shelf life is 12 mo. In unopened container stored indoors. Bulk distribution is also Available with the Roklin strong Arm polymer and aggregate dispensing system.

Additional Aggregate – Up to 25 lbs. of additional 3/8” aggregate may be added to enhance The mechanical properties of the finished product, increase the load bearing ability and Deliver more product per kit. Roklin supplies the 25 lb. bag 3/8” polymer coated basalt that Will increase output from .4 of a cubic foot to over .6 of a cubic foot per 5 gal kit. The Aggregate can be added directly into pail, once FloMix is fully mixed. Minimum spall depth of ½” is required to utilize additional aggregate. Roklin recommends a motorized pail mixer to Ensure a good dispersion of polymers and aggregates.

Physical / Chemical Characteristics

Boiling Point	428° F, 536° F
Vapor Pressure (mm Hg)	NE
Vapor Density (AIR=1)	9.9
Specific Gravity (H2O=1)	1.084, 0.942 - .0948
Melting Point	N/A
Evaporation Rate (Butyl Acetate = 1)	NE
Solubility in Water	Insoluble, reacts with water to form carbon dioxide gas
Appearance / Odor	Pale Amber Color / Odorless Liquid
Reactivity	Stable, under normal, recommended conditions
Conditions to Avoid	Open Flame and Storage Temperatures above 120° F

Table 1 TX DMS – 6170 Type I Physical Requirements

Test	Age at Test	Method	Requirement	Result
Gel time Min.		Tex-614-J	5 to 60 min	9 min
Wet Bond Strength psi	7 days	Tex-618-J	≥ 100 psi	176 psi
Compressive Strength psi	24 hrs.	ASTM C579 B	≥ 200 psi	1710 psi
Compressive Strength psi	7 days	ASTM C579 B	≥ 200 psi	1820 psi
Compressive Strength psi	28 days	ASTM C579 B	≥ 200 psi	2140 psi
Compressive Stress at .1 in	7 days	Tex-618-J	≥ 200 psi	733 psi
Resilience, %	7 days	Tex-618-J	≥ 90%	97.2% *
Resilience, %	7 days	Tex-618-J	≥ 90%	82.0%
Thermal compatibility	7 days	ASTM C884	no delamination or cracking after 9 cycles	Pass

*Test from earlier batch of Material

Table 1 CT 551 Results

Material Property Test	Age at Test	Results
Compressive Strength (MPa)	1 hr*	4.25
Compressive Strength (MPa)	3 hr.*	7.00
Compressive Strength (MPa)	6 hr.*	7.45
Compressive Strength (MPa)	24 hr.	11.80
Compressive Strength (MPa)	7 days	12.55
Compressive Strength (MPa)	28 days	14.75
Flexural Strength (MPa)	24 hr.	5.10
Flexural Strength (MPa)	28 days	6.95
Bond Strength (MPa)	24 hr.	1.40
Bond Strength (MPa)	28 days	2.45
Modulus (MPa)	28 days	163.0
Specific Gravity		1.84
Absorption %		.33%

*Stress at 10 mm Displacement

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Some Important Facts about FloMix Asphalt Repair

- FloMix is a cold-applied, liquid and aggregate slurry that hardens in minutes to provide a long-lasting repair, without the need for removal of damaged asphalt or dig-outs of any kind.
- FloMix utilizes our patented, coated aggregate, which contributes to flowability and ease of installation.
- FloMix can be finished precisely to grade, resulting in a smoother ride over the repaired areas.
- FloMix is easily feathered into the surrounding asphalt to form a repair that blends in visually with the existing pavement.
- FloMix restores aggregate interlock and pavement strength by promoting adhesion between the repaired area and the existing asphalt.
- FloMix can be used anytime the need arises. No need to wait for hot asphalt or heavy equipment.

Listed below are some of the advantages that FloMix offers vs. conventional materials

Simple-to-apply
 Unaffected by extreme hot or cold
 Fast set-up, less than 10 minutes
 Supports heavy roadway traffic

Seals & Waterproofs
 Shortens road closure time; saves labor costs
 Self-compacting
 High-traction surface

Asphalt Repair Applications

Asphalt Pavement Repair
 Asphalt Highway Shoulder Repair
 Broken Asphalt Repair
 Asphalt Crack Repair
 Asphalt Ramp Repair
 Asphalt Parking Lot Repair
 Asphalt Manhole Repair

Level Uneven Asphalt Repair
 Asphalt Pothole Repair
 Asphalt Walkway Repair
 Asphalt Playground Repair
 Asphalt Highway Repair
 Asphalt Loading Dock Repair

Asphalt Patch Repair
 Alligator Repair in Asphalt
 Asphalt Sidewalk Repair
 Asphalt Parking Deck Repair
 Asphalt Equipment Bases Foundation
 Asphalt Driveway Repair

Distributor

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ROKLIN'S ASPHALT REPAIR SYSTEM

	Hot Mix	Cold Mix	FloMix
Before Repairs	Obtain Hot mix	Potholes only	Minimal surface preparation
Surface	Smooth ride requires skilled crew	Poor ride	Excellent match to grade sample
Main Use	New construction, overlays, not designed for repairs	Hot mix alternative skin patching, winter repairs	Rapid permanent repairs
Equipment	Asphalt truck plus specialized equipment and crew for application and compacting	Shovel/compactor	Simple mixing equipment and hand tools
Application Temperature	Ideal - 70° F to 95° F	60° F minimum	Any temperature 30° F and up
Repair Depth	1" to full depth	Potholes and skin patches	Feathered to full depth
Compaction	Must be compacted to attain strength	Compacted by traffic	Self-compacting non-shrinking, flowable
Availability	Must be purchased just prior to use and maintained hot, subject to schedules of hot mix plant, not available nights or weekends	Can be inventoried but dries out and has limited shelf life	Can be inventoried with shelf life of 1 plus year
Potholes	Requires removal, squaring off, base repair prior to repair	Temporary repair, poor match to grade	Minor preparation; No removal; Excellent match to grade
Cracks & Cold Joints	No	No	Yes
Mismatched Grades	No	No	Yes
Rutting Raveling	No	No	Yes
Base Damaged Asphalt	Removal of asphalt and base repair prior to repair	No	Skin patch on asphalt over damage
Alligatoring, Block Cracking	No	No	Yes
Water Proofing, Fuel Proofing	No	No	Yes
Traffic Loops	No	No	Yes
Utility Cuts	First repair with cold mix and then replaced with hot mix later	Temporary repair	Any width 1/2" and up One step repair
Manholes	Must be removed prior to repair	Temporary repairs only	No removal required
Mechanical Strength	Excellent compressive strength with proper compaction	Low strength, works in potholes only	High tensile, compressive and rupture strength
Edge Strength	Very low	Very low	Excellent
Flexibility	Yes	Yes	Yes
Adhesion	Must be tack coated and compacted	Mainly mechanical interlock	Excellent
Fuel/Chemical/Water Resistance	No	No	Yes
Memory	No	No	Yes, recovers to original shape after loading
Manpower Requirements	Skilled crew familiar with special equipment	No special skill set required	No special skill set required



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ROKLIN STEP-BY-STEP ASPHALT REPAIR

Roklin Systems Inc. introduces FloMix, the rapid asphalt repair. With no saw-cut or demolition required, prep is quick and easy, usually just blown air. Damaged areas can be returned to traffic in a fraction of the time required for traditional repair methods. The polymer-based repair works in areas where there is a lot of movement, damaged base, where heavy rolling equipment is not available or where other asphalt repair materials have failed.



To begin, use a wire brush and compressor to sweep and blow the dirt out of the hole.



Put on Nitrile gloves and safety goggles. Also, make sure you have on long sleeves and pants to protect from any possible splatter.



Pour the bottle marked "A" into the bucket. Pour slowly so as not to splash.



Mix the FloMix in bucket with egg-beater style mixer or pail mixer.



Shake "B" bottle for 30 seconds. Pour into bucket. Mix for 2 minutes.



Flow material into damaged area to just-blow grade.



Use a screed to spread the material evenly.



Broadcast topping sand over entire surface until you cannot see liquid.



When set, sweep or blow away excess sand and your repair is ready for traffic.

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