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- What is *Epoxy Healer/Sealer*?
- Pick one: polyurea or epoxy
- Repair tips

New Epoxy Healer/Sealer™

The boys in the white lab coats are always working on new ideas. Our most popular new product is:

EPOXY HEALER/SEALER

The perfect, safer substitute for high molecular weight methacrylate (HMWM) was originally developed at the request of Caltrans. They asked for a more user-friendly structural sealer for cracked concrete bridge decks.

would consolidate the deck back to its original monolithic strength upon cure.

Epoxy Healer/Sealer is the lowest (75 cps) viscosity 100% reactive solids epoxy available. Its primary use is for consolidation and restoration of horizontal cracked decks, loading docks, ramps and slabs. Often these are high use areas where past overloads caused stress failures. It is an excellent primer for coatings in extreme environments or over moderate surface damage (such as excessive shrinkage cracking).

flammable or combustible, and the low odor won't make your fellow employees into mad scientists.

Epoxy Healer/Sealer comes packaged in convenient 5 gallon units. Because it is a two-part epoxy, you need to mix the "A" and "B" components. We took some of the guesswork out by pre-measuring the exact quantity of each so you can pour the

**Call us toll-free
800-757-6773**

The typical application is to flood the horizontal deck surface with a low viscosity structural material which

Unlike HMWMs, Epoxy Healer/Sealer doesn't suffer from oxygen inhibited cure, is not classified as



Polyureas vs. Epoxies

Polyureas are now a popular choice for filling and repairing control joints on industrial and warehouse floors, as well as some public areas where high heels or



Model D pump for polyureas or epoxies

skate wheels cross joints. Previously semi-rigid epoxies were more widely used. Which product is better?

At *ChemCo Systems*, we don't have a favorite because we make a selection of both products. To choose, consider the intended use of the facility and the application environment.

Polyureas Cure speed is the most desirable feature as often the filled joint can often be opened to traffic within 1-2 hours or sooner.

Because of very fast gel
(Continued on back)

hardener bottle in the resin pail and mix with a paint mixer on a drill.

It's also a good idea to plan ahead if you are sealing an area subject to traffic from feet or tires. Because the epoxy makes the surface a bit slippery when wet, a small quantity of medium-to-fine sand should be broadcast on the deck before the epoxy cures.

Features include:

- ◇ Clear appearance
- ◇ Fast cure
- ◇ Stronger bond than concrete
- ◇ Low odor

*Makers of
Construction Polymers.*

**Call us toll-free:
800 757-6773**

DURABLE PUMPS

If you provide crack injection services and the idea of working without a master mechanic on your jobsite is appealing, take a look at our **Model B** injection pump.

Using advanced solid state controls and precision metering, we now have over 100 in the field, many with over 4-6,000 hours of trouble-free use. *It's the real deal!*

Did you know?

Look here to find answers to the strange questions you never asked

- ◇ Ever need to patch or repair a wet or underwater substrate? What if the concrete is subject to flowing water or tidal action? Successful repairs are possible when you use the best surface preparation, understand the techniques of working with a wet surface and use the best wetting adhesives. Call us for recommendations for working in tunnels and pipes, filling voids containing water, underwater patching materials and grouts, and underwater crack injection techniques.
- ◇ When does $1 + 3 = 3.2$? That's what might occur when you mix 1 volume of epoxy binder and 3 volumes of graded sand to form a custom-engineered grout. If you call and ask for Chris Olson, he will explain how to save big dollars by working with locally available sands and shipping only the epoxy. Why make the freight companies rich?
- ◇ Ever have trouble injecting epoxy or chemical grout into drilled ports? The problem may be your drill bit! If you've bumped up the injection pressure and still can't get flow in your ports, try using a hollow core bit with a water swivel instead of a solid rotary impact bit. The solid bit works a little faster, but often it leaves cuttings that plug even big cracks.
- ◇ Your guys ever make a mistake? To clean up spilled cured epoxy, try Jasco® Premium Paint and Epoxy Remover. They sell it through major chains everywhere or call 714 549-6951.
- ◇ What little surprise came from the EPA last September? There is now a national VOC law which impacts coatings in all 50 states. Your favorite solvent-based coating or primer may no longer work well or even be available. We didn't have to change anything since all of our products have been VOC compliant (and non-flammable) for years. Call us if we can help.

Polyureas vs. Epoxies (cont'd.)

times, it is often impractical to hand-mix the faster polyureas, so using a special pump such as our **Model D** may be useful on large jobs for high production rates.

Unlike epoxies, polyureas can cure in very cold conditions, in some cases as low as 10°F. At this low temperature, an epoxy is dormant and will likely freeze. Usually, the epoxy will cure when the ambient air increases to 40°F or more.

Polyureas are often touted for their greater elongation capability (up to 200% vs. ~90%). Yet neither material is intended for use in joints designed to move (such as expansion joints). However, the tall propor-

tional cross-section of most control joints causes either material to separate from the side wall if there is significant joint movement because neither can stretch across its thick middle.

Though polyureas are generally softer, they are very tough under abrasive conditions. Tested in a standard Taber test rig, they may exhibit 40% less weight loss after 1000 cycles than control joint epoxies.

A cautionary note—use a primer with a polyurea when in doubt about dampness or moisture.

Epoxies Although generally slower curing, this may be an advantage if the crack filling

is done by hand pouring or a bulk caulk gun because of longer working time.

When the substrate is damp, wet, or contaminated, an unprimed epoxy has a better chance of bonding to the sides of the joint than a high speed polyurea.

In exterior applications, UV exposure causes fading and sometimes chalking of an epoxy. With aromatic-type polyureas often used in control joints, there can be significant color changes caused by sunlight which may be cosmetically unappealing.

When it comes to mixing and tolerance for “eyeballing” the A & B components, epoxies are more for-

giving. Polyureas may lose some of their properties as soon as the mix ratio is off by 3-6% or more, whereas epoxies will often cure when the proportions are even further apart.

Most semi-rigid epoxies are harder (higher durometer) than comparable polyureas. This may be a critical factor in uses when there is high point loading across floor joints such as the steel wheels on some pallet jacks.

Both products are relatively chemical resistant, but the epoxy usually has a slight edge with organic solvents, many acids and some oxidizers and sanitizers used on floors such as bleaches.

If you can't decide, call us for friendly technical assistance and the best selection anywhere.