



## SILSPEC® 900PNS / FLEXPATCH EQUIPMENT MIXING

On projects requiring larger placements of SILSPEC® 900PNS or SILSPEC® FLEXPATCH the installer can use powered mixing equipment. The mixer used should be a mortar type mixer with a rotating shaft and stationary drum. Concrete mixers should not be used.

Mortar mixers are available in sizes from small to large, with two types available. Portable types (Fig.1) are smaller mixers that can be mounted on a trailer and will handle 2- 1.0 Cubic Foot Kits easily. Towable mixers (Fig.2) are pulled behind trucks and can be maneuvered on the project to a convenient location for the pour. A towable mixer should be limited to either a 6 or 8 Cubic Foot size and will mix multiple kits at a time\*. Larger size mixers tend to be harder to work with on the job. In either case the mixer should be powered with a large enough engine to turn the blades when the drum is loaded.

Figure 1



Figure 2



### Mixing Procedure

***Always mix SILSPEC 900PNS and FLEXPATCH liquid components in a pail and then add to the mixer.***

**On the first batch of the pour**, always mix and pour the combined resin components into the mixer, then add the aggregate component. Allowance should be made for the mixer to utilize some of the available liquid component to “wet-out” the mixer drum. The installer should adjust the aggregate volume downward for the first batch, typically about 1 to 1.5 gallons of aggregate per Cubic Foot Kit depending on mixer size. Allow the aggregate to mix with the binder component till there are no dry pockets of aggregate. Dump the batch into a wheelbarrow and deliver the mortar to the pour location.

On succeeding batches of the pour, after emptying the first batch from the mixer, immediately add the aggregate for the next batch. Let the aggregate be turning in the mixer while the liquid components are being combined in a pail. This method helps in 2 ways, the aggregate will absorb the remaining mortar in the drum and make the batch easier to work, it will also help the drum stay cleaner in the process.

At the end of the last batch, you can do the following to keep build-up of material in the mixer from happening too quickly. Immediately on emptying the last batch from the mixer, add 2 bags of blast sand and 2 or 3 gallons of water. The sand will act to scour the uncured mortar from the blades and the water will help to keep it from sticking back. After about 5 minutes, dump the sand/water mix into a wheelbarrow and dispose. The material coming out of the drum will cure. Turn the mixer drum to the dump position and let the mixer run a few minutes more. This allows the drum to clean itself. If there is uncured mortar left in the drum. Turn the mixer off and remove. If mortar is allowed to cure in the drum there is a possibility that the blades will not turn the next pour.

Please Note: There is no way that material build-up can be prevented, the suggested methods shown here can help manage build-up.

### Preparing the mixer for use:

Before using the mixer for the first time, use a clear silicone sealant to coat the blade shaft and blades of the mixer. This will aid cleaning when the build-up in the mixer has to be removed. An alternate method would be to liberally coat the inside of the mixer with spray paint. These methods will not stop build-up of mortar but will make it easier to clean out. Regardless of the method chosen, always allow for the sealant/paint to cure before use. Note: the drum itself does not need to be coated where the blade wipers will contact.

***Always mix SILSPEC 900PNS and FLEXPATCH liquid components in a pail and then add to the mixer.***

**If the liquid components are mixed in the mixer there is a reasonable possibility that the liquids will not be combined properly. This will result in the headers/patches being soft in areas and have to be removed and replaced.**

### Small pours, hand mixing:

The advantage of the SILSPEC® chemistry is that it is a 1:1 (A to B) mix ratio of the liquid components. A kit can be easily divided down to smaller batch sizes. A 1.0 CUFT kit can be divided in half by measuring out 1/2 gallon Part A and 1/2 gallon Part B, then utilizing 1 bag of aggregate. This can be further divided down by using a ratio of 1 Part liquid components and 3.5 Parts Aggregate. The measurements should always be by volume. When breaking-down kits **ALWAYS** pre-mix each component before measuring/dividing.

\* Use caution when mixing multiple kits, it can be easy to overwhelm a laborer with a weighted-full wheelbarrow. We suggest keeping batch sizes to 2 CUFT at a time.

# SILSPEC® 900PNS/FLEXPATCH EQUIPMENT MIXING

When mixing SILSPEC® 900PNS or SILSPEC® FLEXPATCH the component cans should be scraped with a spatula. A rubber kitchen spatula works very well for this purpose. This aids in getting as much liquid out of the can as possible.

Suggested mixing containers for hand mixing 1.0 CUFT kits would be 16 gallon smooth side/bottom tubs. 5 gallon buckets for less than 1/2 CUFT kits are ideal.

Use a low-speed heavy-duty drill and mixing paddle. Avoid whipping excessive air into the mix.



Mixing tools shown:  
Tub or bucket, mixing paddle, margin trowel, spatula to scrape cans.

This Data is to give the installer alternate methods to mix SILSPEC® 900PNS and SILSPEC® FLEXPATCH. It is up to the installer to determine what is the best method for his/her job conditions.

ALWAYS utilize caution around moving/operating tools and equipment, follow safety guidelines found in their respective manuals.

The use of the informational sheet does not relieve the installer of reading and understanding the appropriate SSI Product Data or MSDS information.

## GENERAL PRODUCT CAUTIONS

- ◆ During all operations, established safety codes and workman protection must be observed.
- ◆ Use of protective creams, clothing, goggles, and rubber gloves are recommended during all phases of handling and use. Read and follow all handling precautions on labels. Use common sense in handling SILSPEC® 900PNS / FLEXPATCH and all other chemicals.
- ◆ Observe good housekeeping rules and regulations during all phases of use and handling of either unmixed or mixed product.
- ◆ Ample ventilation should be provided during all periods of sandblasting, mixing and application procedures.
- ◆ In accordance with ICC Regulation #49, Item 173.4: Containers containing less than one (1) fluid ounce of liquid are considered non-hazardous material. Empty containers may be crushed and should be disposed of in accordance with state and local regulations.
- ◆ Remove epoxy immediately with clean, dry towel and wash skin thoroughly with soap and water.
- ◆ Good housekeeping rules are always important. Provide ample ventilation in all areas of handling, mixing and use. Avoid prolonged breathing of possible fumes. Minimize skin contact. Use of goggles, rubber gloves and skin creams is recommended. If material gets into eyes, flush thoroughly with clean water for 20 minutes; then seek medical treatment. Observe all safety precautions when using any type of solvent for cleaning tools or equipment.

## CLEAN UP

All tools, other application or mixing equipment must be cleaned at frequent intervals and while SILSPEC® 900 PNS / FLEXPATCH remains soft and uncured.

For cleaning hand tools, CITRUS CLEANER, ACETONE or other approved solvents are most effective, or cleaning can be accomplished using waterless hand cleaner.

*NOTE --- Some solvents are **FLAMMABLE** and all safety codes and regulations governing their use must be observed.*

## MATERIAL SPILL

Collect with absorbent material. Dispose of in accordance with local, state and federal disposal regulations.

**FOR CHEMICAL EMERGENCY CALL**  
**1-800-842-9300**  
**24 hours per day, 7 days per week.**

## CONTACT

Contact SSI for further information of installation instructions.

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