

## **CRYL-A-TEX**

(For use with Cryl-A-Tex Powder produced January 2016 and after)

### **IMPORTANT!**

Read these instructions carefully several days prior to starting your work. Seek answers to any questions you may have before you begin. DUR-A-FLEX, Inc. maintains a Technical Staff that will be glad to answer your questions and give you advice pertaining to your particular installation.

### **PRODUCT OVERVIEW**

CRYL-A-TEX is a 100% reactive, fast curing, high strength; methyl methacrylate (MMA) based polymer concrete. It is a three-component mortar consisting of a MMA liquid component, a powder component made from sands and fillers, and CRYL-A-CURE (BPO), which initiates the cure. The mortar can be extended with washed and dried pea gravel to produce a polymer concrete for deeper applications.

Note: This system cannot be thinned with solvents.

### **TYPICAL USES**

- Repair potholes, spalled and eroded concrete
- Bridge, highway and runway repair
- Rebuild pump bases
- Overlays
- Vertical surfaces (form)
- Rebuild joints
- Freezer repairs
- Cove base
- Bearing pads
- Structural repairs
- Sloping
- Grouting
- Anchor bolts

### **COLORS**

CRYL-A-TEX is available in Natural but can be pigmented with 4 fluid ounces of CRYL-A-COLOR in the following colors: Pebble Grey, Stone Grey, Silver Grey, Blue Grey, Sand Yellow, Brown Beige, Red, Green, Safety Yellow and White. Refer to the CRYL-A-FLEX Color Chart on our website.

### **SURFACE PREPARATION**

The substrate must be dry and free of oil, grease, dirt, bituminous and other contaminants. Unsound concrete and laitance should be removed by appropriate mechanical means. Edges of repairs should be keyed-in. The system is not designed to be “feather edged”. Refer to the DUR-A-FLEX Surface Preparation Guide for detailed instructions on our website.

### **DRAWINGS AND DETAILS**

Standard CAD drawings and details are available for coves, drains, breaches, transitions, etc. Please refer to our website.

### **MOISTURE CONCERNS**

Please refer to the Floor Evaluation Flow Chart in the Contractor’s Center of our website for a step-by-step process to determine the condition of the concrete.

### **BOND TEST**

Prior to full application of the primer, bond tests shall be conducted to determine adequacy of substrate preparation and bond. The bond of the primer to the substrate should be greater than the tensile strength of the substrate. A proper Bond Test will result in concrete and fractured aggregate being attached to the specimen. If only laitance or a small amount of the substrate is attached further preparation is required.

This is a very simple procedure that uses the CRYL-A-PRIME P-101, with or without the CRYL-A-BOND, Q-Rok or Q-11 sand, CRYL-A-CURE (BPO) and a hammer and chisel.

The procedure is as follows:

Pour 6-8 ounces (170-225 ml) of CRYL-A-PRIME P-101 into a plastic cup. Add 1-2 tablespoons (10-20 ml) of CRYL-A-CURE (BPO) and mix with a paint stick for 15-30 seconds. Add Q-Rok or Q-11 size sand (1.5 times the volume of resin) and mix well to achieve a very WET slurry. **NOTE:** if this mix is too dry it will not leave enough resin to soak into the substrate. A good indication of a wet mix is that there should be excessive resin on the surface in the cup and a ring of resin surrounding the patty after it is placed on the substrate.

Place 3-4 inch (75-100 mm) diameter 1/4 – 1/2 inch (6.4-12.8 mm) thick patties on the substrate.

Allow to cure for 1 hour 68 F (20 C). Verify that the patties are tack-free and cooled to the substrate temperature.

Remove with a hammer and chisel. Examine the bottom of the patty. There should be 1/8 - 1/2 inch (3-13 mm) of concrete and fractured aggregate attached.

If the bottom of the patty is tacky, has only laitance or fines attached, then further surface preparation is necessary.

## **VENTILATION**

Prior to any application, proper “negative pressure” ventilation must be established. Refer to the CRYL-A-FLEX Ventilation Guidelines on our website for details.

## **JOINT GUIDELINES**

Refer to the Joint Guidelines for complete details on our website

## **APPLICATION METHOD**

### **Primer:**

Prior to installing CRYL-A-TEX the prepared substrate must be primed with CRYL-A-PRIME P-101. The typical batch size of primer is usually 1 gallon (4 liters). Warmer conditions may dictate a smaller batch size. The primer is applied with a brush or roller at 80 - 100 Sq Ft per gallon (2-3 m<sup>2</sup> per liter) to achieve an even, puddle free surface. Substrates that are very porous may require an additional coat. Roller coats are applied with a 3/8-inch (11 mm) or 1/2-inch (13 mm) nap roller. Rough substrates may require a longer nap to avoid puddles. Based on the temperature, add the proper amount of CRYL-A-CURE (BPO) to the CRYL-A-PRIME P-101. The proper amount of BPO can be found on the CRYL-A-FLEX Mix Chart on our website.

Mix for 30 - 60 seconds or until the BPO is completely dissolved. Pour an even ribbon of material out onto the floor and roll to the proper thickness. The primer will cure tack free in 45 - 60 minutes.

CRYL-A-BOND can be used to enhance the bond strength of the primer to the substrate. Add 16 ounces (1 pint) of CRYL-A-BOND to 1 gallon of P-101. If CRYL-A-BOND is used with P-101, the next coat must be applied within 16 hours. Failure to do this could result in inadequate inter-coat adhesion.

### **Mixing (Natural color):**

Material must be conditioned to the temperature at which it will be applied.

CRYL-A-TEX is best mixed with an 850 RPM drill and a 5” Jiffler mixing paddle.

As a mortar (without additional aggregate) the minimum amount of liquid is 48 ounces. For deeper repairs (1/2” and deeper) refer to the Cryl-A-Tex Mix Guide for the proper amount of pea gravel. Never make a “dry mix” and DO NOT add any sand. The pea gravel must be washed and dried. These limits are important because if the mix is too dry, it may not cure properly or have enough residual liquid to form a proper bond with the primer. Too much liquid could result in shrinkage cracks.

For temperature ranges of **33F to 90F**, add 48 ounces of

CRYL-A-TEX LIQUID to a clean 5 gallon pail. Add 11 ounces of CRYL-A-CURE and mix for 45 seconds. Slowly add 1 bag (31 LBS) of Cryl-A-Tex Powder (and pea gravel if needed) and continue to mix for 1 minute.

For temperatures ranges of **32 F to 0 F** add 42 ounces of CRYL-A-TEX LIQUID to a clean 5 gallon pail. Add 6oz. of LTC ADDITIVE (Low Temperature Cure) and mix for 15 seconds. Add 14 ounces of Cryl-A-Cure and mix for 1 minute. Slowly add 1 bag (31 LBS) of CRYL-A-TEX POWDER (and pea gravel if needed) and continue to mix for 1 minute.

### **MIXING – pigmented:**

The total amount of liquid to be used in a batch of CRYL-A-TEX should **include** the 4 fluid ounces of CRYL-A-COLOR. For example, if the desired consistency is a 48 ounce batch of mortar, the batch will consist of 44 ounces of CRYL-A-TEX LIQUID, 4 ounces of CRYL-A-COLOR, 11 ounces of CRYL-A-CURE and 1 bag of CRYL-A-TEX AGGREGATE.

To mix, add the CRYL-A-TEX LIQUID to a clean 5 gallon pail, pour the CRYL-A-COLOR in, mix for 15 seconds and follow the steps as described above for the specific temperature range.

### **Deep repairs:**

For applications over a 1/2 inch thick, the mortar is extended with PEA GRAVEL. The amount and size of the pea gravel to be used is determined by depth of the pour. Refer to the CRYL-A-TEX Polymer Concrete Mixing Guide on our website.

Pea gravel must be washed and dried. DO NOT add any sand to the mix. Any moisture or dirt on the surface of the gravel will result in a weak polymer concrete.

### **Installation method:**

CRYL-A-TEX is finished with conventional flat trowels, floats or screeds. The material handles similar to Portland cement concrete. Finish to achieve a smooth, closed surface.

### **CURE**

CRYL-A-TEX system will cure in approximately 1½ hours. At this time the polymer concrete is fully functional or ready for subsequent applications. However, as the CRYL-A-TEX cures to full hardness its temperature will increase. Be sure that the temperature of the CRYL-A-TEX has decreased to the original substrate temperature before applying subsequent coats. Also, when used for repairs or subsequent applications of other CRYL-A-FLEX systems, **the surface of the polymer concrete must be primed with CRYL-A-PRIME P-101.**

### **PACKAGING**

CRYL-A-TEX LIQUID is available in 1-gallon cans, 5-gallon pails and 50-gallon drums. CRYL-A-TEX POWDER is available in 31 lb bags. DUR-A-FLEX PEA GRAVEL is available in 50 lb bags in 1/8, 3/8 and 3/4 inch sizes.

## **STORAGE CONDITIONS**

Store in a cool, dry place below 85 F and out of direct sunlight. Do not store near open flame or food. The shelf life is 6 months from ship date in the original unopened containers.

## **CAUTION**

**CRYL-A-TEX LIQUIDS are flammable liquids in their uncured state. Smoking, open flames or sparks should not be permitted during the handling of the product.**

Workers should wear protective clothing consisting of splash-proof goggles, impermeable gloves and, where exposure limits are exceeded, an organic vapor respirator should be used.

Air powered or explosion proof mixing equipment is required.

Adequate cross ventilation should be provided and explosion proof fans may be required. All foodstuffs must be removed during application of the system. **Refer to the Safety Data**

**Sheet for proper personal protective equipment to use when handling this product. Use only as directed. If substrate and/or material temperature is above 90 F, Do Not apply material.**

### **IMPORTANT!**

*Before using DUR-A-FLEX products, read and understand its accompanying Safety Data Sheet.*

STANDARD TERMS AND CONDITIONS OF SALE, INCLUDING STANDARD WARRANTY APPLY - VISIT **DUR-A-FLEX.COM** FOR THE LATEST VERSION

**CAUTION!** As with all chemical products, individuals may have different reactions to exposure to specific products. This is dependent upon many factors, including the individual's personal characteristics, the size of the installation, the ventilation available, the intensity of the exposure or the length of the exposure. Individuals may experience discomfort during the installation process of one product, but not another.

In some cases this is experienced as a skin irritation and in others it is experienced as an inhalant irritation. Typically, it disappears once the exposure is eliminated. In some cases people can become "sensitized" to a product and experience the discomfort every time there is exposure without Personal Protective Equipment ("PPE").

To protect yourself from various exposures or discomfort during the mixing and application of our products, we recommend covering exposed skin including, using gloves, long sleeves, safety glasses and a respirator such as the 3M 8577 P95 Universal Disposable Carbon Respirator or a cartridge respirator.

Use only as directed. KEEP OUT OF REACH OF CHILDREN.

Do not reseal moisture-contaminated hardener. This will result in carbon dioxide generation or possible violent rupture of container.