

# DIAMOND POLYMERS

## DP824 – TECHNICAL DATA RAPID SET ADHESIVE

### PRODUCT DESCRIPTION:

DP824 is a two component 100% solids polymercaptan adhesive that offers a quick cure and temperature insensitivity. Although the product is mercaptan based, unique formulation processing has effectively disguised the typical mercaptan odor generally recognized with this type of product.

### RECOMMENDED FOR:

Recommended for repairing cracks and defects in concrete or masonry and anchoring of injection ports for subsequent crack injection repairs. This product is also suitable as a road marker adhesive.

### SOLIDS BY WEIGHT:

100%

### SOLIDS BY VOLUME:

100%

### VOLATILE ORGANIC CONTENT:

Zero pounds per gallon

### COLORS AVAILABLE:

Gray (mixed)

### RECOMMENDED FILM THICKNESS:

Variable depending on type of application

### COVERAGE PER GALLON:

0.13 cubic feet or 306 lineal feet @ 1/4"x1/4"

### PACKAGING INFORMATION

1 gallon kit (19.2 pounds net approximately) consists of 1/2 gallon part A (4.9 pounds) and 1/2 gallon part B (4.7 pounds). Other size packaging is available upon request.

### MIX RATIO:

1 gallon part A (9.8 pounds) to 1 gallon part B (9.4 pounds) (volumes and weights approximate)

### SHELF LIFE:

1 year in unopened container

### ADHESION:

360 psi @ elcometer (concrete failure, no delamination)

### HARDNESS (SHORE D):

10 minutes.....	22
20 minutes.....	49
30 minutes.....	64
60 minutes.....	72
4 hours.....	77
24 hours.....	79
7 days.....	79

### TENSILE LAP SHEAR:

30 minutes.....	1,094 psi
60 minutes.....	2,074 psi
2 hours.....	2,642 psi
4 hours.....	2,641 psi

### WATER ABSORPTION:

0.5% weight gain @ 7 day cure, 48 hour immersion

### VISCOSITY:

Mixed= 131,000 cps (typical)

### DOT CLASSIFICATIONS:

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN1790, PGIII"

### CURE SCHEDULE: (70°)

pot life – 2 gallon volume.....	3 minutes
pot life (smaller volumes).....	3-4 minutes
tack free (dry to touch).....	5-15 minutes
recoat or topcoat.....	15-30 minutes
light foot traffic.....	1-2 hours
full cure (heavy traffic).....	24 hours

### APPLICATION TEMPERATURE:

This product is not temperature dependent and therefore may be applied over a wide range of temperatures (we recommend 20-100 degrees F as lower and upper temperatures)

### CHEMICAL RESISTANCE:

REAGENT	RATING
butanol	B
xylene	A
1,1,1 trichloroethane	B
MEK	A
methanol	A
ethyl alcohol	C
skydrol	A
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric acid	C
70% sulfuric acid	A
10% HCl (aq)	C
5% acetic acid	A

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

### PRIMER:

None necessary

### TOPCOAT:

None necessary

### LIMITATIONS:

\*Color stability may be affected by environmental conditions such as high humidity, chemical exposure, or exposure to certain types of lighting such as sodium vapor lights or UV light.

\*Colors may vary from batch to batch.

\*Substrate temperature should be 5°F above dew point to prevent moisture contamination, otherwise make sure the substrate is dry.

\*This product has a very short pot life. Therefore, mix only an amount that can be used in a 2-3 minute time span.

\*Part B is air sensitive and may develop a skin on top; therefore, always seal partially used containers promptly. Remove any skinned over material prior to using product.

\*All new concrete must be cured for at least 30 days prior to application.

\*See reverse side for application instructions.

\*Physical properties are typical values and not specifications.

\*See reverse side for limitations of our liability and warranty.

## INSTRUCTIONS (DP824)

- 1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should be between 60 and 90°F. Low temperatures or temperature fluctuations may cause crystallization.
- 2) **SURFACE PREPARATION:** All dirt, foreign contaminants, oil, and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start repair work. This product is intended for cracks and other fractures as well as anchoring injection ports. Remove all unsound concrete from within the crack to be repaired and thoroughly vacuum all debris and dust from within the crack opening.
- 3) **PRODUCT MIXING:** This product has a mix ratio of 1 part A to 1 part B by volume. To mix, simply measure out equal volumes of the material and mix them together thoroughly with slow speed mixing equipment such as a jiffy mixer or other suitable mixing equipment until the material is thoroughly mixed and streak free. Mix only an amount of material that can be used in a short period time. A two gallon volume of material will have a usable pot life of about three minutes. Therefore, it will be essential to work with smaller volumes. However, even smaller volumes will not decrease the pot life significantly. Improper mixing may result in product failure.
- 4) **PRIMING:** No priming is necessary.
- 5) **PRODUCT APPLICATION:** The mixed material can be applied by marginal trowel, putty knife, or any other suitable equipment.
- 6) **RECOAT OR TOPCOATING:** When placing a topcoat over a repaired crack, allow the material to cure before installing the coating. If excessive amounts are spread well beyond the crack repair or in areas where surface repairs have been implemented, it is best to check the cured areas for any possible amine blush (a whitish, greasy film, or deglossing) prior to coating over this material. If a blush is present, it must be removed prior to topcoating or recoating. When installing injection ports, allow sufficient time for the material to cure before starting the injection process.
- 7) **CLEANUP:** Use xylol.
- 8) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the fast gel installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.
- 9) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle.

## NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

*We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may **CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.***