

DIAMOND POLYMERS

DP823 – TECHNICAL DATA FAST SET EPOXY CRACK FILLER

PRODUCT DESCRIPTION:

DP823 is a two component 100% solids epoxy crack filler designed for shallow repair on either vertical or horizontal surfaces. This product is easy to mix and use and has a non-critical mix ratio. Additionally, the product, because it is a 100% solids formulation, can be applied thicker on horizontal surfaces when required.

RECOMMENDED FOR:

Recommended for repairing cracks and defects in concrete or masonry.

SOLIDS BY WEIGHT:

100%

SOLIDS BY VOLUME:

100%

VOLATILE ORGANIC CONTENT:

Zero pounds per gallon

COLORS AVAILABLE:

Gray (when mixed)

RECOMMENDED FILM THICKNESS:

1/8" cracks or thin build repairs.

COVERAGE PER GALLON:

0.13 cubic feet or 1,228 lineal feet @ 1/8" x 1/8"

PACKAGING INFORMATION

2 gallon kit = 1 gallon part A @ 10.5 pounds and 1 gallon part B @ 9.3 pounds (19.8 pounds net). (volumes and weights approximate)

MIX RATIO:

1 part A to 1 part B by volume

SHELF LIFE:

1 year in unopened containers

ABRASION RESISTANCE:

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 44 mg loss

FLEXURAL STRENGTH:

8,045 psi @ ASTM D790

COMPRESSIVE STRENGTH:

7,410 psi @ ASTM D695

ADHESION:

350 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed = 1,500,000 cps (typical)

DOT CLASSIFICATIONS:

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN11760, PGIII"

TENSILE STRENGTH:

5,600 psi @ ASTM D638

ULTIMATE ELONGATION:

8.2%

GARDNER VARIABLE IMPACTOR:

50 inch pounds direct – passed

HARDNESS:

Shore D = 50

HEAT DEFLECTION TEMP.:

53 degrees C

CURE SCHEDULE: (70°)

pot life – 2 quart volume20-35 minutes

tack free (dry to touch).....30-40 minutes

recoat or topcoat.....3-5 hours

light foot traffic.....4-6 hours

full cure (heavy traffic).....2-7 days

APPLICATION TEMPERATURE:

55-90 degrees F.

CHEMICAL RESISTANCE:

REAGENT	RATING
butanol	C
xylene	B
1,1,1 trichloroethane	A
MEK	A
methanol	A
ethyl alcohol	A
skydrol	B
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:

Optional: This product can be overcoated with many suitable epoxy and urethane products.

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.

*Colors may vary from batch to batch.

*This product is not UV color stable and may discolor when exposed to UV light sources.

*The gray color is not from our standard color chart.

*Substrate temperature must be 5°F above dew point.

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

*Do not topcoat over this product until it is tack free. If coating over repairs that are larger, it may be advisable to check for an amine blush prior to application of subsequent coatings.

*Mix only an amount that can be used in the prescribed pot life period.

*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 (DP823)

- 1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should be between 60 and 90⁰ 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 hairline cracks and other fractures up to an 1/8 inch in width. 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 (10.5#/ gallon) to 1 part B (9.3#/gallon 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, putty knife or spatula until the material is thoroughly mixed and uniform in color. Mix only an amount of material that can be used in the allotted pot life period. 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:** 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 can be removed by any standard type detergent cleaner prior to topcoating or recoating. Many epoxy coatings and urethanes are compatible for use over this product as well as multiple coats of this product.
- 7) **CLEANUP:** Use xylol
- 8) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the fast set 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.***