

# DIAMOND POLYMERS

## DP601 – TECHNICAL DATA UNDERWATER CRACK FILLER EPOXY PASTE

### PRODUCT DESCRIPTION:

DP601 is a two component 100% solids epoxy gel designed for shallow repair on either vertical or horizontal surfaces. This product is easy to mix 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. This product can be used where contamination from water can occur during the cure process or it can be used directly underwater.

### RECOMMENDED FOR:

Recommended for repairing cracks and defects in concrete or masonry under water or on wet substrates.

### SOLIDS BY WEIGHT:

100%

### SOLIDS BY VOLUME:

100%

### VOLATILE ORGANIC CONTENT:

Zero pounds per gallon

### COLORS AVAILABLE:

Tan/light brown (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

3 gallon kit = 2 gallons part A @ 9.0 pounds and 1 gallon part B @ 11.3 pounds and 15 gallon kits also available. (volumes and weights approximate)

### MIX RATIO:

2 parts A to 1 part B by volume

### SHELF LIFE:

1 year in unopened containers

### FLEXURAL STRENGTH:

4,910 psi @ ASTM D790

### COMPRESSIVE STRENGTH:

9,400 psi @ ASTM D695

### ADHESION:

405 psi (dry) 350 psi (wet) @ elcometer (concrete failure, no delamination)

### VISCOSITY:

Mixed = 2,500,000-3,000,000 cps (typical)

### DOT CLASSIFICATIONS:

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN1760, PGIII"

### TENSILE STRENGTH:

4,102 psi @ ASTM D638

### ULTIMATE ELONGATION:

2.3%

### GARDNER VARIABLE IMPACTOR:

50 inch pounds direct – passed

### HARDNESS:

Shore D = 65

### HEAT DEFLECTION TEMP.:

59 degrees C (138 degrees F)

### CURE SCHEDULE: (70°)

pot life – 1 ½ gallon volume.....20-30 minutes  
tack free (dry to touch).....3-12 hours  
recoat or topcoat.....3-12 hours  
light foot traffic.....10-24 hours  
full cure (heavy traffic).....2-7 days

### APPLICATION TEMPERATURE:

35-90 degrees F.

### CHEMICAL RESISTANCE:

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

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: DP600L can be used in some applications (see DP600L, DP600 technical data before using).

### LIMITATIONS:

- \* Color stability may be affected by environmental conditions such as immersion service, temperature, or chemical exposure.
- \* Colors may vary from batch to batch.
- \* This product is not UV color stable and will discolor when exposed to UV rays or some indoor lighting such as sodium vapor lights.
- \* All new concrete must be cured for at least 30 days prior to application.
- \* It is advisable to place test patches prior to undertaking underwater or water contaminated repairs to insure product and surface compatibility.
- \* The temperature of the water may increase or decrease the time for the material to cure, dependent on the temperature of the water.
- \* See reverse side for application instructions.
- \* Physical properties are typical values and not specifications.
- \* See reverse side for limitations of our liability and warranty.

- 1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should be between 60 and 90<sup>0</sup> F. Low temperatures or temperature fluctuations may cause crystallization.
- 2) **SURFACE PREPARATION:** All dirt, foreign contaminants, oil contamination and laitance must be removed to assure a trouble free bond to the substrate. 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 remove all debris from within the crack opening.
- 3) **PRODUCT MIXING:** This product has a mix ratio of 2 parts 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, 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. It is important to thoroughly work the paste into the repair area so as to displace any water from within the repair area. This product can be used underwater as well as in any area where the flow of water cannot be controlled.
- 6) **RECOAT OR TOPCOATING:** For underwater repairs, we do not recommend any topcoat be applied. However, in areas where water contamination may occur during the cure process but subsequent to topcoat application, our DP600L can be used effectively. See the technical data for the DP600 before using or contact your sales representative for further details. Allow the DP601 to become tack free prior to topcoating. Multiple coats of the DP601 are acceptable and bond readily.
- 7) **CLEANUP:** Use xylol
- 8) **SURFACE 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.***