

# DIAMOND POLYMERS

## DP100V – TECHNICAL DATA HIGH BUILD INDUSTRIAL VERTICAL EPOXY COATING

### PRODUCT DESCRIPTION:

DP100V is a two component 100% solids epoxy colored coating designed for applications to vertical surfaces at a high build without sag or slump.

### RECOMMENDED FOR:

Recommended for cement, concrete or brick applications up to 12 mils thick.

### SOLIDS BY WEIGHT:

100% (+/- 1%)

### SOLIDS BY VOLUME:

100% (+/- 1%)

### VOLATILE ORGANIC CONTENT:

Nearly zero pounds per gallon

### STANDARD COLORS:

White, off white, light gray, medium gray and beige

### RECOMMENDED FILM THICKNESS:

6-12 mils

### COVERAGE PER GALLON:

133 - 267 square feet per gallon @ 6-12 mils

### PACKAGING INFORMATION

1 gallon kit (8.90# part A to 1.5# part B) (this is a gallon can of part A (not full) plus 1.5# of part B in a quart can (not full). When the part B is transferred to the part A can, the result is one gallon mixed (volumes approximate) Also available in 5 gallon kits.

### MIX RATIO:

8.90 pounds part A to 1.50 pounds part B

### SHELF LIFE:

1 year in unopened containers

### FINISH CHARACTERISTICS:

Gloss (72 at 60 degrees @ Erichsen glossmeter)

### ABRASION RESISTANCE:

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 38 mg loss

### FLEXURAL STRENGTH:

7,347 psi @ ASTM D790

### COMPRESSIVE STRENGTH:

10,620 psi @ ASTM D695 – 1/2" X 1/2" bars

### ADHESION:

470 psi @ elcometer (concrete failure, no delamination)

### VISCOSITY:

Mixed = 2500-3500 cps (typical, most colors)

### DOT CLASSIFICATIONS:

Part A "not regulated"

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

### TENSILE STRENGTH:

7,140 psi @ ASTM D638

### ULTIMATE ELONGATION:

3.3%

### GARDNER VARIABLE IMPACTOR:

50 inch pounds direct – passed

### HARDNESS:

Shore D = 80

### CURE SCHEDULE:

pot life – 1 gallon volume .....45-90 minutes @ 70°F  
tack free (dry to touch).....10-14 hours @ 70°F  
recoat or topcoat.....14-16 hours @ 70°F  
light (industrial use).....16-24 hours @ 70°F  
full cure (heavy traffic).....2-7 days @ 70°F

### APPLICATION TEMPERATURE:

50-90 degrees F with relative humidity below 90%

### CHEMICAL RESISTANCE:

REAGENT	RATING
xylene	B
trichloroethylene	B
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	C

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:

Recommended DP015V

### TOPCOAT:

None normally needed (for increased chemical resistance and increased UV stability use an aliphatic urethane topcoat)

### LIMITATIONS:

- \*Color stability or gloss may be affected by environmental conditions such as high humidity, low temperatures, chemical exposure or exposure to certain types of lighting such as sodium vapor lights.
- \*Colors may vary from batch to batch. Therefore, use only product from the same batch for an entire job.
- \*Apply a suitable primer before using this product when necessary.
- \*This product is not UV color stable but has good resistance to color change for an epoxy product. Therefore, a topcoat is optional and dependent on the environment.
- \*Light or bright colors may require a suitable primer or topcoat to achieve a satisfactory hide.
- \*Substrate temperature must be 5°F above dew point.
- \*Improper mixing may result in product failure.
- \*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.

- 1) **PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Low temperatures or great temperature fluctuations may cause product crystallization.
- 2) **SURFACE PREPARATION:** Surface preparation will vary according to the type of complete system to be applied. For a two coat thin to medium build system on vertical surfaces, we recommend mechanical scarification until a suitable profile is achieved. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. When the vertical surface is below grade, 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 coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.
- 3) **PRODUCT MIXING:** This product has a mix ratio of 8.9# part A to 1.5# part B. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.
- 4) **PRIMING:** Primer need is based on type of substrate and its condition. When a primer is needed, we recommend NP015V before applying this product. See the front side of this technical data for primer information. If a primer is not used, more porous substrates may cause outgassing and possible surface defects.
- 5) **PRODUCT APPLICATION:** The mixed material can be applied by brush, roller, or spray. Maintain temperatures and relative humidity within the recommended ranges during the application and curing processs. Apply the material between the recommended thicknesses to avoid sags and runs.
- 6) **RECOATING:** If you opt to recoat this product, you must first be sure that the coating has tacked off before recoating. However, all previous coats should be deglossed to insure a trouble free bond prior to application of recoats. Always remember that colder temperatures will require more cure time for the product before recoating can commence. Before recoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to recoating. Any standard type detergent cleaner can be used to remove the blush. If you plan to topcoat this product with another epoxy or urethane, always check compatibility and adhesion characteristics prior to topcoating. Multiple coats of this product are compatible.
- 7) **CLEANUP:** Use xylol
- 8) **FLOOR CLEANING:** Caution! Some cleaners may affect the color. Test each cleaner in a small area. 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.***