

# DIAMOND POLYMERS

## DP600L – TECHNICAL DATA

### LOW TEMPERATURE (moisture insensitive) EPOXY

#### PRODUCT DESCRIPTION:

DP600L is a two component 100% solids epoxy system designed for high build low temperature applications.

#### RECOMMENDED FOR:

Recommended for service areas where water exposure exists and applications to damp concrete. This product can be applied to substrates with temperatures as low as 35 degrees F, even where there is continual access to water to the repair area. This product can be used as a mortar binder, broadcast liquid or as a coating.

#### SOLIDS BY WEIGHT:

100%

#### SOLIDS BY VOLUME:

100%

#### VOLATILE ORGANIC CONTENT:

zero pounds per gallon

#### COLORS AVAILABLE:

Clear – gardner color 4

#### RECOMMENDED THICKNESS:

14-16 mils

#### COVERAGE PER GALLON:

100-114 square feet per gallon @ 14-16 mils

#### PACKAGING INFORMATION:

1 ½ gallon kit (1.45 gallons net approximately)

3 gallon kit (2.9 gallons net approximately)

#### MIX RATIO:

9.2# (1 gal) part A to 4.3# (0.50 gal) part B (volumes approximate)

#### SHELF LIFE:

1 year in unopened containers

#### FINISH CHARACTERISTICS:

gloss (>60 at 60 degrees @ Erichsen glossmeter)

#### ABRASION RESISTANCE:

Tabor abrador CS-17 calibre wheel with 1000 gram total load and 500 cycles = 37 mg loss

#### VISCOSITY:

Mixed = 2200-3000 cps (typical)

#### DOT CLASSIFICATIONS:

Part A “not regulated”

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

#### FLEXURAL STRENGTH:

9,922 psi @ ASTM D790

#### COMPRESSIVE STRENGTH:

10,100 psi @ ASTM D695

#### TENSILE STRENGTH:

6,482 psi @ ASTM D638

#### ULTIMATE ELONGATION:

2.1%

#### GARDNER VARIABLE IMPACTOR:

50 inch pounds direct - passed

#### HARDNESS:

Shore D = 86

#### ADHESION:

420 psi @ elcometer (concrete failure, no delamination)

#### CURE SCHEDULE: (70° F)

pot life – (unit volume) .....10-20 minutes

tack free (dry to touch).....3-5 hours

recoat or topcoat..... 4-7 hours

light foot traffic.....8-12hours

full cure (heavy traffic).....2-6 days

#### APPLICATION TEMPERATURE:

>34 degrees F

#### CHEMICAL RESISTANCE:

REAGENT	RATING
Butanol	C
xylene	C
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:

(Temperature permitting) DP154 clear or DP015 clear

#### TOPCOAT:

Optional (temperature permitting) DP321/324 aliphatic urethanes or successive coats of 600L in aggregate filled systems.

#### LIMITATIONS:

- \* Color or gloss stability may be affected by environmental conditions such as high humidity, temperature or chemical exposure.
- \* Colors may vary from batch to batch.
- \* This product has a short pot life. Mix only an amount that can be used in the prescribed period.
- \* This product is not UV color stable, and will exhibit moderate color instability when exposed to UV rays from the sun or when exposed to some sources of indoor lighting such as sodium vapor lights.
- \* For best results, apply with a 1/4" nap roller.
- \* All new concrete must be cured for at least 30 days prior to application.
- \* Apply a primer before using this product (temperature permitting).
- \* 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:** The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. If this material is to be applied over concrete or cement that is wet, then it is advisable to apply a test patch prior to using.

3) **PRODUCT MIXING:** This product has a mix ratio of 9.2# part A to 4.3# 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. Mix only an amount of material that can be used in the prescribed pot life period as listed on the technical data. 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:** No primer is normally needed 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. However, the material can also be applied by a suitable serrated squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. When applying material, make sure the material is worked into the substrate well to insure that water is displaced in pores of the concrete. This will aid in adhesion properties. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating. This product can be used with various colored sand in a broadcast system or other suitable aggregate can be used in conjunction with this product to achieve a variety of color and application patterns. Beware of the short pot life when working with this material.

6) **RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). 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 as a topcoat for 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 floor installed. Test each cleaner in a small area, utilizing your cleaning technique before using.

9) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured. It is best to let the floor remain dry until fully cured.

## **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.***