

DIAMOND POLYMERS

DP094 – TECHNICAL DATA EPOXY MORTAR GROUT COAT

PRODUCT DESCRIPTION:

DP094 is a two component 100% solids epoxy system designed for application where a low build epoxy is needed to seal the surface of a previously placed epoxy mortar overlay system without changing the existing texture of the mortar. This product has outstanding wear resistance and superb chemical resistance.

RECOMMENDED FOR:

Recommended for a topcoating/sealing epoxy mortar power troweled systems or hand troweled systems.

SOLIDS BY WEIGHT:

100% (+/- 1%)

SOLIDS BY VOLUME:

100% (+/-1%)

VOLATILE ORGANIC CONTENT:

Zero pounds per gallon

STANDARD COLORS:

White, off white, light gray, medium gray, tile red, beige, and clear (clear is opaque clear)

OTHER COLORS ALSO AVAILABLE:

Dark gray, charcoal gray, brown, tan, and light blue

Special colors are available upon request

RECOMMENDED FILM THICKNESS:

6 mils

COVERAGE PER GALLON:

267 square feet per gallon @ 6 mils (coverage may vary depending on actual mortar porosity)

PACKAGING INFORMATION

3 gallon kit (25.3-25.7 pounds net approximately)

MIX RATIO:

(1 gallon) part A to (.50 gallons) part B (volumes approx.) 8.7-8.9# part A per 3.95# part B for colors and 9.3# part A to 4.6# part B for the clear.

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Gloss (>60 at 60 degrees @ Erichsen glossmeter)

ABRASION RESISTANCE:

Taber adrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 34 mg loss

ADHESION:

400 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed= 3000-4000 cps (typical)

DOT CLASSIFICATIONS:

Part A "not regulated"

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

FLEXURAL STRENGTH:

8,400 psi @ ASTM D790

COMPRESSIVE STRENGTH:

10,700 psi @ ASTM D695

TENSILE STRENGTH:

6,900 psi @ ASTM D638

GARDNER VARIABLE IMPACTOR:

50 inch pounds direct – passed

HARDNESS:

Shore D = 87

ULTIMATE ELONGATION:

2.9%

CURE SCHEDULE: (70°)

pot life – 1 1/2 gallon volume20-30 minutes
tack free (dry to touch)..... 5-8 hours
recoat or topcoat..... 9-14 hours
light foot traffic.....14-18 hours
full cure (heavy traffic).....2-7 days

APPLICATION TEMPERATURE:

50-90 degrees F with relative humidity below 90% for best results

CHEMICAL RESISTANCE:

REAGENT	RATING
xylene	C
MEK	A
methanol	A
ethyl alcohol	B
skydrol	C
10% sodium hydroxide	D
50% sodium hydroxide	C
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:

Recommend epoxy mortar power trowel overlay system as a starting base

TOPCOAT:

Optional: many epoxy and urethane topcoats are compatible

LIMITATIONS:

*Color stability, clarity or gloss may be affected by environmental conditions such as high humidity or chemical exposure.

*Colors may vary from batch to batch. Therefore, use only product from the same batch for an entire job.

*This product is not UV color stable, but has very good resistance to color change for an epoxy product. Therefore, a topcoat is optional.

*Substrate temperature must be 5°F above dew point

*For best results, apply with a flat squeegee, then backroll with a 1/4" nap roller.

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

*Mix material well before using

*This product is intended for use over an epoxy mortar system

*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:** The most suitable 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. A test should be made to determine 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 2 parts A (8.7-8.9#/gallon) to 1 part B (3.95#/gallon) by volume for standard colors, and 9.3# part A to 4.6# part B for the clear. 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. However, a direct 2:1 mix proportioning by volume can be employed. 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. Continue mixing for another couple of minutes to insure a homogeneous mixture. Make sure you scrape the bottom and sides of the pail while mixing. Improper mixing may result in product failure.
- 4) **PRIMING:** This product is intended to be used over an epoxy mortar troweled system. It is advisable to select a mortar color similar to the color of the DP094 to be used.
- 5) **PRODUCT APPLICATION:** Make certain that the epoxy mortar overlay where the product is to be applied, is clean, sound and free of all laitance, dirt, dust, oil, grease, water, or foreign contaminants. Apply the mixed coating by a flat flexible rubber squeegee so as to spread out the material in a uniform manner removing all excess material from the surface of the mortar; then backroll (removing all excess material) with a fine nap roller. Depending on the porosity of the mortar overlay and the color selected, it may be necessary to apply more than one coat of material to achieve uniform coverage. When applied properly, the texture of the mortar will still be visible. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process.
- 6) **RECOAT OR TOPCOATING:** Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product. When you recoat or topcoat this product, make sure the previous coat 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 to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it can be removed with a standard type detergent cleaner.
- 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. 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.***