

# DIAMOND POLYMERS

## DP128 – TECHNICAL DATA

### ARTIC FORMULATION EPOXY MORTAR PATCH KIT

#### PRODUCT DESCRIPTION:

DP128 is a three component 100% solids epoxy mortar designed for applications where temperatures are as low as minus 10 degrees F. (-10°F)

#### RECOMMENDED FOR:

Recommended for cold storage areas, freezers or general outdoor patching in the winter.

#### NOT RECOMMENDED FOR:

Immersion applications for acids and chemicals.

#### SOLIDS BY WEIGHT:

100%

#### VOLATILE ORGANIC CONTENT:

zero pounds per gallon

#### COLORS AVAILABLE:

This product is available as a natural unpigmented product only.

#### RECOMMENDED THICKNESS:

1/8" to 1/4"

#### COVERAGE PER KIT:

5.98 sq. ft. @ 1/4" and 11.96 sq. ft. @ 1/8"

#### PACKAGING

kit

#### CUBIC FEET

.125 (approx)

\*KIT= 2.0# for part A, 0.90# for part B, and 13# aggregate. (Larger size kits are not available because of the short pot life, all weights are approximate)

#### MIX RATIO:

\*UNIT= .21 gallons part A to .10 gallons part B plus 13# aggregate (weight and volumes approximate)

#### SHELF LIFE:

2 years in unopened containers

#### ABRASION RESISTANCE:

excellent

#### VISCOSITY:

Part A= 900-1000 cps, Part B= 200 cps maximum

#### DOT CLASSIFICATIONS:

Part A&C "not regulated"

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

#### FLEXURAL STRENGTH:

15,000 psi @ ASTM D790

#### COMPRESSIVE STRENGTH:

11,000 psi @ ASTM D695

#### TENSILE STRENGTH:

8,900 psi @ ASTM D638

#### ULTIMATE ELONGATION:

3.4%

#### IMPACT RESISTANCE:

Excellent

#### HEAT DEFLECTION TEMP.:

56.0 degrees F @ ASTM D648

#### WEATHERING:

Good (chalks)

#### CURE SCHEDULE: (70°)

pot life (.125 cu. ft. mix).....2-4 minutes

recoat or topcoat..... 1-2 hours

light foot traffic.....2-4 hours

full cure (heavy traffic).....1-3 days

\*traffic serviceable.....12 hours @ 30°F

#### APPLICATION TEMPERATURE:

-10-40 degrees F

#### CHEMICAL RESISTANCE:

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

#### TOPCOAT:

None required

#### LIMITATIONS:

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

\*Product is not UV color stable and may discolor if exposed to lighting such as sodium vapor lights.

\*Colors may vary from batch to batch due to variations in the silica filler.

\*Substrates must be dry and free of ice.

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

\*See reverse side for application instructions.

\*Test data based on neat resin.

\*Physical properties are typical values and not specifications.

\*See reverse side for limitations of our liability and warranty.

\*WARNING! This product has a very short pot life, mix only an amount of material that can be used in the prescribed pot life. Work must be performed in a quick and organized manner.

- 1) **PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be above 55°F to prevent product crystallization.
- 2) **SURFACE PREPARATION:** All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. We recommend that an aggressive shot blast be performed prior to the application of this product. A less adequate method would be acid etching, but the etch should properly profile the substrate. All edges and around columns or beams should be mechanically scarified. All termination points should not be feather edged, but should be saw cut with the termination ending at the saw cut. All large cracks should be V cut and filled with an appropriate crack filler. All expansion joints should be filled with an appropriate joint filler. When overlaying an expansion joint, a single saw cut through the epoxy overlay will prevent random fracturing. A test should be made to determine that the concrete is dry; (when the surface temperature is above 32 degrees F) 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. In any event, the surface must be dry.
- 3) **PRIMER:** No primer is necessary. This material is self priming.
- 4) **PRODUCT MIXING:** It is important that the liquids be mixed together first. Have the liquids at normal room (70 degrees) temperature and then take them into the area where the repair is to be made. CAUTION! This material has a very, very short pot life; be prepared to work efficiently and in an organized manner. Mix the liquids in an oversized container quickly and thoroughly until streak free. After the liquids are mixed, add in the aggregate immediately. Mix in the aggregate with slow speed mixing equipment such as a jiffy mixer (quickly). No induction time is necessary. Mix only an amount of material that can be used in the prescribed pot life period.
- 5) **PRODUCT APPLICATION:** Immediately after mixing, apply the mixed material at 1/8 to 1/4 inch thickness. Apply the material with a hand trowel or other suitable application equipment. Do not over-trowel the material as this may cause isolated blisters to form. Direct air currents above or across the mortar during the curing process may cause isolated blisters. Maintain temperatures within the recommended ranges during the application and curing process.
- 6) **RECOAT OR TOPCOATING:** No recoating or topcoating is necessary. However, if you opt to topcoat the applied mortar, allow it to cure before topcoating. Many epoxies and urethanes can be used at elevated temperatures.
- 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.***