

# DIAMOND POLYMERS

## DP021 – TECHNICAL DATA

### SILANE/SILOXANE PENETRATING SEALER (AVAILABLE IN 20% OR 40% STRENGTHS)

#### PRODUCT DESCRIPTION:

DP021 is a one component water based multifunctional self-crosslinking water soluble alkylalkoxy silane and siloxane designed to treat a wide variety of mineral substrates including architectural concrete, concrete block, splitface block, pavers, stucco, porous and dense brick, clay tile, exposed aggregate concrete, sandstone, and slate.

#### BENEFITS OF USE:

- \*Provides excellent water repellency to reduce cracking, spalling, freeze-thaw damage, chemical degradation, biological growth, efflorescence, and dirt pickup, thereby lengthening substrate life and reducing maintenance costs.
- \*Provides excellent beading for improved aesthetics
- \*Low VOC emissions on curing. EPA compliant.
- \*Formulated to minimize darkening effects thus not changing substrates appearance (20% strength or less.)
- \*Good performance on both neutral and highly alkaline surfaces providing application field flexibility.
- \*Physically and chemically bonds to substrate
- \*Product is UV stable and will not discolor
- \*Product is resistant to biological degradation for longer service life.
- \*Coatings are vapor permeable to resist cracking, peeling, blistering and allows for carbonation to continue after the coatings application. This allows for lengthened substrate life and for greater substrate structural strength over time.

#### VOLATILE ORGANIC CONTENT:

Less than 280g/l, at 40% and 140g/l at 20% strength.

#### COLOR:

White opaque emulsion

#### COVERAGE PER GALLON:

When the surface is fully saturated, coverage will depend on the absorptivity of the substrate resulting in 100 to 400 square feet per gallon coverage.

#### PACKAGING INFORMATION:

This product is available in 1 gallon, 5 gallon and 55 gallon containers.

#### SHELF LIFE:

Six months in unopened containers when stored between 50-80 degrees F.

#### FINISH CHARACTERISTICS:

This product does not change the overall appearance of the substrate. After the material is applied and allowed to dry for 24 hours, it will not be readily apparent that the application has occurred, except the surface will exhibit excellent water repellency.

#### ABRASION RESISTANCE:

The application of this product will increase the abrasion resistance of most substrates. Results will vary according to substrate type.

#### ADHESION:

Because this material becomes an integral part of the surface that is coated and does not form an impermeable barrier, delaminations do not occur.

#### DOT CLASSIFICATION:

“Not regulated”

#### VISCOSITY:

Less than 25 cps

#### CURE SCHEDULE: (70°)

Allow the material to dry for a 24 hour period of time to obtain the maximum benefits of the application

#### APPLICATION TEMPERATURE:

45-95 degrees F.

#### PERFORMANCE OF NP021 (both 20% & 40%)

WATER REPELLENCY	passes ASTM E514
WATER REPELLENCY	NCHRP 244 (86.75)
WATER REPELLENCY (after 1 month)	NCHRP 244 (81.88)
WATER REPELLENCY (after 5 freeze-thaws)	NCHRP 244 (85.0)
UNALTERED APPEARANCE (Delta E/5% soln.)	1.08/1
REDUCTION OF Cl-ion % effectiveness)	>80.0
SCALING	ASTM C672 (highest rating of 0)

#### COVERAGE RATES & DILUTION:

Substrate	Coverage rates Sq. ft./gallon	dilution ratio recommendation (based on 40%)	
		%	ratio
Architectural concrete	80	6.6	5:1
Concrete block	80	6.6	5:1
Splitface block	125	10.0	3:1
Concrete pavers	40	3.3	10:1
Stucco	125	10.0	3:1
Porous brick	150	10.0	3:1
Dense brick	350	20.0	1:1
Clay tile	75	6.6	5:1
Exposed aggregate concrete	325	20.0	1:1
Sandstone	125	10.0	3:1
Slate	450	40.0	0:1

#### PRIMER:

2 coats recommended

#### TOPCOAT:

2 coats recommended

#### LIMITATIONS:

\*See application procedures on the reverse side for more details. Always apply a test patch before using.

\*Physical properties listed on this technical data sheet are typical values and not specifications.

\*See reverse side for limitations of our liability.

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 50 and 80 degree F. Keep from freezing.

2) **SURFACE PREPARATION:** All dirt, oil, dust, foreign contaminants and sealers must be removed to assure a trouble free application. This product will work on a wide variety of substrates but a test patch should be placed prior to undertaking the application. The surface to be treated should be dry and should remain dry for a twenty four hour period after the application. Prepare surface by: abrasive blasting, acid etching, solvent degreasing, caustic soda scrubbing, or high pressure washing. If strong acidic or alkaline cleaning agents are used, neutralize the surface and remove all residue before application. Always apply a test patch to insure product suitability.

3) **PRODUCT APPLICATION:** Stir material before using. Apply material without thinning when at a 20% concentration or dilute with water when using the 40% concentration according to the required concentration level necessary. Apply material with a brush, roller, or spraying equipment. Apply the treatment to the surface until it is saturated without puddles. Typical application rates will be about 125 square feet per gallon. Apply two coats using a wet-on-wet procedure to ensure complete coverage. Maximum water repellency is achieved in 72 hours depending on environmental conditions. Beading generally improves over time. Do not use for below grade applications or where water pressure is from interior walls. Do not apply to plastic or foam substrates. Penetrating sealer will not prevent water passage through unsound or cracked surfaces. Protect surrounding areas from overspray or splatter.

4) **RECOAT OR TOPCOATING:** Two coats are recommended. Substrates that are coated with concentrations at 10% or less are generally recoatable and will actually improve the adhesion on mineral substrates.

5) **CLEANUP:** Use any suitable detergent and water.

6) **FLOOR CLEANING:** Caution! Although very unlikely, some cleaners may affect the color of the treated surface. 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.

7) **RESTRICTIONS:** Restrict the use of the substrate to light traffic and non-harsh chemicals including water until 24 hours has passed. Keep the area dry for this period (excluding the application of the product.)

**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.***

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