

Experience



Excellence

## DIAMOND HARD "GUARDIAN"

NC-DH **Guardian** is a one component, water based, ultra small partical, functionally stabilized, hardening and protective coating specifically for use in the grind and polishing of concrete as a stain guard

**RECOMMENDED USES FOR:** Concrete, overlays and Natural Stone

**Guardian** increases chemical resistance and abrasion resistance. **Guardian** improves weathering, densifies and reduces efflorescence. Protects and fortifies concrete as it seals against moisture damage. Application will reduce dusting and increase concrete life. DH **Guardian** reduces water absorption into the substrate.

### GENERAL PRODUCT DATA

#### SOLIDS BY WEIGHT:

Proprietary

#### SOLIDS BY VOLUME:

Proprietary

#### VOLATILE ORGANIC CONTENT:

95.58 grams per liter

#### RECOMMENDED FILM THICKNESS:

Apply until surface is saturated without puddles. Can be applied by any suitable method such as spraying and microfiber mop

#### COVERAGE PER GALLON:

When the surface is fully saturated, coverage will depend on the absorptivity of the substrate resulting in 1000 to 3000 square feet per gallon coverage.

#### PACKAGING INFORMATION

5 gallon kits and 55 gallon drums (volume approx.)

#### SHELF LIFE:

1 year in unopened containers

#### STANDARD COLORS:

Opaque milky white color

#### FINISH CHARACTERISTICS:

This product may darken the surface slightly.

#### IMPACT RESISTANCE:

N/A

#### ABRASION RESISTANCE:

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

#### FLEXIBILITY:

N/A

#### ADHESION:

Because this material is applied prior to the final burnishing step and is developed to deeply penetrate into the pores of the concrete and form a film for chemical resistance it will remain as a coating after the final burnishing step

#### VISCOSITY:

Less than 25 cps

#### DOT CLASSIFICATIONS:

Not regulated

#### MIX RATIO:

Required none

#### CURE SCHEDULE:

Allow the material to dry for a 72 hour period of time to obtain the maximum benefits of the application. This allows the material to react with the concrete and become an integral part of the substrate. **Guardian** can be burnished within 1 hour of application

#### APPLICATION TEMPERATURE:

55-90 degrees F with relative humidity below 75%

#### CHEMICAL RESISTANCE:

N/A

#### TEST AREA:

Concrete substrates vary from geographical regions throughout the country and the actual condition of the concrete can provide varying results. Results can also vary from floor machine weights, RPM speed and the sequence of polishing stages and diamond grit sizes, therefore, test a minimum 4 ft. by 4 ft. area on each type of concrete to determine suitability before undertaking the entire project.

#### PRIMER:

Concrete Densifying : We recommend the use of the NC-DHD. The DHD was designed to densify the concrete while allowing subsequent products such as the NC DH -**Guardian** to thoroughly penetrate the surface.

#### TOPCOAT:

Required none

#### LIMITATIONS:

- \*The surface should be dry prior to the application of this product.
- \* This product is intended for interior use only.
- \* Always apply a test patch to determine the suitability before using.
- \* Allow to completely dry before polishing.
- \* Product may slightly darken the substrate.
- \* Stain resistance and water repellency may not fully develop for 2-4 days.
- \* Remove spills as soon as possible to limit staining possibilities.
- \*Physical properties listed on this technical data sheet are typical values and not specifications.
- \*See reverse side for application instructions.

# DIAMOND HARD GUARDIAN

## MIXING AND APPLICATION INSTRUCTIONS

**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.

**SURFACE PREPARATION:** All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free application. Repair any damaged surfaces with a suitable product.

**PRODUCT MIXING: None Required**

**PRODUCT APPLICATION:** Stir material before using. This product is intended to be used as final polishing step when diamond grind/polishing concrete substrates. Normally, a densifier (silicates) is used in the early stages of the grind and polish sequence and prior to using this product. An example of a polishing sequence would be: 80 grit grind, 150 grit NC-DHD grind, 200 grit grind, 400 grit grind, , 800 grit grind then apply NC-DH Guardian . The overall process is dependent on equipment used, the equipment RPM and weight as well as the desired gloss after the final polishing step. For increased shine, even finer and finer grit sizes can be employed. Always apply a test area to determine the gloss and finish characteristics prior to commencing the entire job. The DH Guardian can be applied by a typical garden sprayer to wet the surface without any puddles followed by a lint free finish mop to assure a thin and even coat. When using the lint free finish mop, because the product dries fairly quickly, make sure that the finish mop is used prior to the coating tacking off or becoming partially dry. Do not allow overspray to contact equipment or other surfaces. Typical application coverage ranges from 1000 to 3000 square feet per gallon. When applied correctly, no excess material should remain on the surface and the surface will look damp without free liquids. After the material is applied, allow the material to completely dry before completing the final polishing step. Keep floor completely dry for at least 24 hours after the final polishing step is performed. Product is intended for indoor applications on concrete with a functional vapor barrier.

### CONCRETE PRECAUTIONS:

Since NC-DH Guardian does not totally seal pores, water can still evaporate from the underlying surface. However, if capillary water is traveling toward the treated face, some of it will be stopped at the depth to which the Guardian has penetrated. At this point it will evaporate, passing through the treated area as water vapor. This normally will present no problem. However, if the capillary water source contains soluble salts, they will be deposited at this point within the substrate where this water evaporates. In essence, this reduces visible efflorescence but there is this danger: If capillary water deposits excessive amounts of soluble salts, their crystalline growth can develop sufficient pressure resulting in spalling. Spalling may also result from substantial pressures of water freezing behind the face of the surface before evaporation can occur. These conditions both develop from outside sources of water. Concerning positive side water absorption, applications of this material will reduce positive side absorption and improve the capability of the substrate to resist spalling. Although the material will strengthen the substrate, outside sources of water may cause problems if the hydrostatic pressure is sufficiently great.

**RECOAT OR TOPCOATING:** Normally one coat before the final polishing step is all that is required for gloss and maintenance . For Chemical resistance a second coat is required! Please see attached tech data sheet as to the procedures and chemicals used to achieve tested performance. Deviation from process or use of different materials other than Nikka Black Diamond products may yield an outcome different from our testing and isn't warranted.

**CLEANUP:** Use any suitable mild detergent with a neutral pH to slightly alkaline pH and water.

**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.

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

### Warranty

Since no control is exercised over product use, The Nikka Corporation warrants that its products are manufactured free from defect and are consistent and within manufacturing tolerances on our data sheets. No other oral or written representation or statement of any kind, expressed or implied, now or hereafter made is authorized or warranted by The Nikka Corporation. This product is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular use. The Nikka Corporation shall have no liability for incidental or consequential damage, direct or indirect. Our liability is limited to price of or replacement of our product at our option. By accepting delivery of our product means that you have accepted the terms of The Nikka Corporation Warranty.

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