

## DURO-SHIELD



Water-based, ultra-high gloss, metal cross-linked, concentrated, synthetic polymer concrete floor polish with UV inhibitors and stain blocking additives. Duro-Shield is the final step and protective coating in the **Duro-Floor Color System**.

### HOW IT WORKS

The small molecular size and low molecular weight of Duro-Shield allows deep penetration, providing a very hard, high gloss, non-slip and stain resistant finish. A unique stain blocking additive penetrates concrete micro-pores and chemically bonds, providing long-lasting stain resistance to most inorganic and organic contaminants found in food stores, restaurants, warehouses and distribution centers. Powerful UV inhibitors in Duro-Shield protect Duro-Color dye from fading due to indirect exposure to sunlight.

### APPLICATIONS

- ◆ For use on new interior, existing or overlaid diamond polished concrete floors as a component part of the **Duro-Floor Color System**.
- ◆ Ideal for use in new and existing retail store applications requiring a decorative, low maintenance finished flooring system.
- ◆ Also performs well in new and existing office applications as a replacement for tile or carpeting.
- ◆ Ideal for use in sporting arenas, convention centers, schools, institutional buildings, libraries, public buildings, grocery stores, clothing stores, electronic stores, restaurants, office buildings and residential homes.

### ADVANTAGES

- ◆ Provides 24-hour stain protection to the most common stain-causing agents found in grocery stores, restaurants, warehouses and distribution centers.
- ◆ Treated floors exhibit exceptional gloss, long-lasting stain and UV protection to help prevent dyed floors from fading.
- ◆ Does not require buffing.
- ◆ Increases slip resistance. Meets static coefficient of friction requirements of ASTM D-2047.
- ◆ Durable - scuff and scratch resistant.
- ◆ Retains high gloss under scrubbing.
- ◆ Exposure to periodic dripping of hot oils will not stain or remove Duro-Shield, making it ideal for use in food preparation areas.
- ◆ Rejuvenates with dry buffing.
- ◆ Easy to apply and reapply.
- ◆ Safe to use -- water based, low odor, no fumes.
- ◆ Duro-Shield meets all federal VOC requirements.

### ▲ PRECAUTIONS ▲

- ◆ Recommended for interior use only.
- ◆ Applied Duro-Shield should be allowed to cure for a minimum of 7

days before cleaning.

- ◆ The use of ammonia or amine containing cleaners or detergents will cause irreparable damage to Duro-Shield, requiring reapplication to restore gloss. SEE MAINTENANCE.
- ◆ The stain protection properties of Duro-Shield have been tested on smooth, steel-troweled concrete treated with Duro-Nox LSC liquid silicate hardener and have not been tested in conjunction with other liquid floor hardeners or on other surfaces, including tile and stone. Before applying Duro-Shield to any other surface for the purpose of stain prevention, an adequate test should be done on a representative sample replicating actual use.
- ◆ Allow 72 hours of dry time prior to testing stain resistance.
- ◆ Product is intended to give a reasonable opportunity for cleanup of spills. In some cases, the product will act as sacrificial protection and will require reapplication, following the procedures given below, once the spill has been cleaned.
- ◆ Protect from freezing. If allowed to freeze, product packaging may rupture and the emulsion stability of this product may be affected, making it difficult to keep product mixed during application. Product which is suspected of freezing should not be used.
- ◆ Verify that product is within the "USE BY" date stated on product packaging. Do not use expired product. The use of expired product may result in poor performance or failure.

### USE INSTRUCTIONS

- ◆ Request current product literature, labels and material safety data sheets from manufacturer and read thoroughly before product use.
- ◆ Site environmental conditions, substrate conditions and construction have a major effect on product selection, application methods, procedures and rates, appearance and performance. Product literature provides general information applicable to some conditions. However, an adequate site test application by the purchaser or installer in advance of field scale use is mandatory (irrespective of any other verbal or written representations) to verify that product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.
- ◆ Surfaces to receive an application of Duro-Shield should be cleaned, polished up to the minimum equivalent of 800-grit resin bond diamonds and previously dyed with Duro-Color and densified with Duro-Nox LSC liquid floor hardener. Allow a minimum of 24 hours between the application of Duro-Nox LSC and Duro-Shield. All grinding residue and other foreign contaminants should be removed prior to application of Duro-Shield.
- ◆ Do not apply at air or substrate temperatures below 40° F (4° C).
- ◆ Mix well before use.
- ◆ This product is concentrated and generally requires dilution with water prior to use. The dilution ratio is largely dependent on

DURO-SHIELD

Color Guard and Fade Protectant



chemical solutions to concrete problems

both concrete floor surface porosity and desired level of gloss. Most diamond-polished concrete floor surfaces generally require a concentrated dilution ratio (more product and less water) to achieve the desired gloss and stain blocking properties. To determine the optimum dilution ratio, it is recommended to test several areas at varying dilution rates and evaluate for both gloss and stain protection. The general recommended dilution ratio by volume to achieve maximum gloss and stain protection on most concrete floor surfaces is 2 parts Duro-Shield to 1 part water.

- ◆ Application is best accomplished in two steps. First, spray apply the product using a low pressure hand pump sprayer, such as The Nox-Crete Perfect Sprayer, equipped with an 8003LP spray nozzle. Second, uniformly spread the product using a Duro-Polish/Duro-Shield Applicator equipped with a micro-fiber pad. The micro-fiber pad should be pre-moistened with Duro-Shield prior to use. Do not allow product to dry prior to spreading.
- ◆ Application rates vary according to the density and texture of the substrate. Typical diluted application range is 500-1,500 sf/gal. (12-36 sm/L).
- ◆ Although a single coat of Duro-Shield is adequate, the best gloss, UV and stain blocking protection is obtained when two coats of Duro-Shield are applied. Do not apply successive coats until the previous coat has dried, approximately 1-2 hours.
- ◆ Before allowing foot traffic, verify that the surface is completely dry, generally 1-2 hours. Cool and humid conditions may prolong dry time.
- ◆ Keep treated surface dry for 24 hours following application for optimum results. Full stain resistance capabilities achieved after 72 hours; stain resistance testing should not occur until after this time.

## MAINTENANCE

- ◆ Do not use ammonia or amine containing detergents to clean a Duro-Shield treated floor. **SEE PRECAUTIONS.**
- ◆ Although Duro-Shield provides stain protection, all spills should be wiped up immediately.
- ◆ Nox-Crete recommends *Zep Commercial Neutral Floor Cleaner Concentrate*, diluted according to manufacturer instructions, for cleaning **Duro-Floor Color System** floors. The use of any other neutral floor cleaning product should be tested before full scale cleaning to ensure compatibility with the **Duro-Floor Color System**.
- ◆ Do not perform regular maintenance with aggressive pads such as diamond impregnated polishing pads. The use of aggressive polish pads will cause fading and loss of stain protection. Occasional dry buffing restores gloss and repairs scratches and scuff marks.
- ◆ Reapplication of Duro-Shield every 2-3 years will restore stain and UV fade protection to **Duro-Floor Color System** floors.

## TECHNICAL DATA

<b>Color</b>	Milky White
<b>Clarity</b>	Opaque
<b>Odor</b>	Pleasant
<b>Bulk Density</b>	8.4 lbs/gal (1.0 kg/L)
<b>VOC, Duro-Shield</b>	<400 g/L
<b>Static Coefficient of Friction (ASTM D-2047)</b>	>0.5

## STAIN RESISTANCE

Testing was conducted on smooth, steel troweled concrete treated with Duro-Nox LSC liquid silicate hardener. Sample concrete received 2 coats of Duro-Shield according to our recommended application instructions. Treated samples were then subjected to multiple cleanings with a floor maintenance pad to adequately test the stain resistance of Duro-Shield under normal use.

### 24 HOUR STAIN RESISTANCE TESTING RESULTS

**Stain Evaluation Scale:** 0 = None 1 = Very Light 2 = Light 3 = Moderate 4 = Heavy 5 = Very Heavy 6 = Light Etching

	Untreated Concrete	Duro-Nox LSC & Duro-Shield
<b>Cooking Oil</b>	4	0
<b>BBQ Sauce</b>	1	0
<b>Used Motor Oil</b>	5	0
<b>Mayonnaise</b>	3	0
<b>Red Wine</b>	2	0
<b>Pickle Relish</b>	6	0
<b>Yellow Mustard</b>	3	0
<b>Apple Cider Vinegar</b>	6	0

## PACKAGING

Packaged in 1 gal (3.8 L) jugs, 5.28 gal (20 L) bag-in-a-box and 55 gal (208 L) drums.

## SHELF LIFE

Shelf life is one year. Use before the "USE BY" date stated on product packaging.

## HANDLING/STORAGE

Store in a dry location within a temperature range between 40° F (4° C) and 100° F (38° C).

## AVAILABILITY & TECHNICAL SERVICES

In addition to corporate offices in Omaha, Nebraska, NOX-CRETE Products Group maintains regional offices and distribution centers in principal markets throughout the world. For source or technical information, call 800-669-2738 or 402-341-2080.

## LIMITED WARRANTY

### NOTICE-READ CAREFULLY

#### CONDITIONS OF SALE

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