



# CARE & MAINTENANCE

## DURO-NOX, DURO-NOX HS/HSC & DURO-NOX LS/LSC

### CONCRETE NATURALLY BREAKS DOWN OVER TIME

Concrete is created when water is mixed with cement, setting off a chemical reaction known as cement hydration. The product of this reaction is Calcium Silicate Hydrate, which quickly multiplies to form a paste that holds large and small aggregates together, resulting in concrete.

A by-product of cement hydration is calcium hydroxide, a water-soluble compound that remains in concrete and increases potential wear. When calcium hydroxide erodes, surfaces are left with pits and voids. These defects contribute to the deterioration of concrete floors. Leftover calcium hydroxide means a shorter floor lifespan.

Fortunately, there are ways to make the most of calcium hydroxide – even ways to make it contribute to concrete strength and longevity.

### DURO-NOX SILICATE HARDENERS – FILLING IN THE GAPS

Nox-Crete's Duro-Nox series of liquid floor hardeners are designed to take advantage of calcium hydroxide left behind after cement hydration. The key component in each Duro-Nox formulation is a silicate, which reacts with calcium hydroxide to create additional Calcium Silicate Hydrate gels. These gels become a permanent part of the floor, filling gaps to increase abrasion resistance and surface hardness.

By creating additional Calcium Silicate Hydrate, Duro-Nox reduces the porosity of concrete, creating chemical resistance to most organic acids, alkalis, salts, foods, fats, oils and more. When successfully applied, Duro-Nox provides permanent surface protection and floors develop an attractive, glossy sheen over time.

### WHAT TO EXPECT FROM A DURO-NOX TREATED FLOOR

- A longer lifespan and improved performance
- Improved strength and dustproofing
- Greater abrasion resistance
- Resistance to high volumes of pedestrian and vehicular traffic
- Increased surface hardness
- A shine that increases with age and use
- Chemical resistance to acids, alkalis, salts, foods, fats, oils and more

# MAINTAINING A DURO-NOX TREATED FLOOR

To maximize the performance of Duro-Nox products, proper maintenance is essential and ensures a long lifespan for treated floors. The following guide is an overview of recommended practices.

## EQUIPMENT NEEDED FOR MAINTENANCE

In order to ensure proper maintenance, an understanding of necessary equipment and cleaning chemicals is useful.

- Microfiber Mop - Use to sweep and mop floors frequently to remove dust and dirt.
- Automatic Scrubber – Use a cleaning machine with rotating soft-bristled brushes or pads capable of dispensing and vacuuming cleaning solutions for full floor cleaning.
- Cleaning Pad – A low-speed (175-600 RPM), soft pad is recommended for automatic scrubber cleaning, such as 3M's Topline Autoscrubber 5000.
- Diamond-Impregnated Pad - Use a 1,500 or 3,000-grit diamond-impregnated cleaning and scrubbing pad fitted to an automatic scrubber to restore surface gloss.

## RECOMMENDED CLEANER

- ZEP Commercial Neutral Floor Cleaner - Use a Neutral pH Cleaner for regular maintenance cleaning.
- Bio-Clean – Spot treat spills and stains with Nox-Crete's powerful, citrus-based cleaner, diluted 1:5 with water.
- DO NOT use acidic or alkaline-based cleaners as primary cleaning agent, as they can remove necessary cement paste and affect Duro-Nox's performance.

## REGULAR MAINTENANCE

The frequency of maintenance procedures depends on floor traffic, use conditions and owner preference. Follow these instructions to properly maintain floors.

### SWEEP - MOST FREQUENTLY

- Use a microfiber pad to sweep and dust mop floors. This will remove potentially harmful dirt particles.

### SCRUB - FREQUENTLY

1. Dust mop the floor to remove dust and debris before running an automatic scrubber. *Some machines have a presweep brush and can skip this step.*
2. Dilute a neutral pH cleaner with water according to the manufacturer's instructions.

3. Fill an automatic scrubber fitted with a soft pad with the cleaning solution.
  4. Run the scrubber starting from the outside perimeter and move slowly over the surface, making sure to clean the entire floor.
  5. After the first pass, go over the surface a second time with the scrubber's vacuum on to remove excess cleaning solution.
- Do not allow cleaning solutions to dry on the surface, as this can damage floors.

### BUFF - OCCASIONALLY

- Attach a 1,500 or 3,000-grit diamond-impregnated pad to the automatic scrubber during normal cleaning procedure to restore and maintain surface gloss.

## SPILLS AND STAINS

Though Duro-Nox floors experience increased spill resistance, properly handling spills is essential.

1. Wipe up all spills immediately.
  2. Clean oil, grease and food spills or stains with a citrus-based cleaner, such as Nox-Crete's Bio-Clean, diluted a minimum 1:5 with water.
  3. Rinse and remove the cleaning solution before it dries on the surface. Do not allow the cleaning solution to dry, as it can cause damage.
- Failing to clean spills quickly allows the spilled product to penetrate treated concrete, possibly causing permanent staining.
  - Over time, floors treated with Duro-Nox gain impressive stain resistance and become far less vulnerable to staining.

## REAPPLICATION

With regular maintenance, a floor treated with Duro-Nox can be expected to perform better and last longer than non-treated floors. However, reapplication may eventually be needed depending on floor usage and traffic.

- Because we firmly believe in our products, a 20-year warranty is available for Duro-Nox.
- If reapplication is required, consult the product data sheet or contact Nox-Crete.