

nox-crete®

chemical solutions to concrete problems



# DURO-NOX®

## FLOOR DENSIFIERS

PROTECT • SEAL • HARDEN • DUSTPROOF



402-341-2080

[www.nox-crete.com](http://www.nox-crete.com)

# WHY DENSIFY?



## INCREASES IMPACT & ABRASION RESISTANCE

Increases the impact and abrasion resistance of concrete floors where protection from high volume pedestrian or forklift wear is required.



## HARDENS/DENSIFIES

Penetrates deep into concrete surface pores and capillaries where it combines with calcium hydroxide (lime) to form calcium silicate hydrate that chemically hardens and densifies concrete floor surfaces. Performance and life far exceed that of membrane forming sealers and coatings.



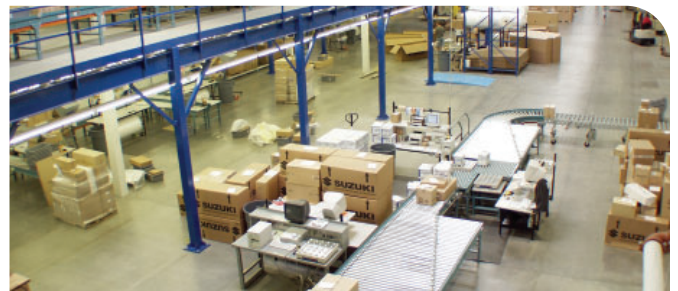
## EASIER TO CLEAN

Reduced surface pores and capillaries through densification results in concrete floor surfaces that become more “glass like” and are much easier to clean.



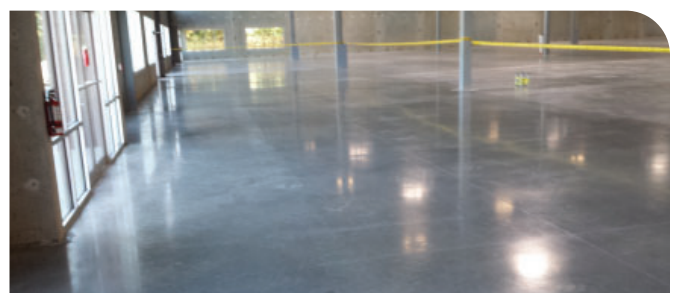
## DUSTPROOFS

Concrete matrix becomes harder, stronger and more resistant to surface fracturing during heavy use reducing surface dusting — 20 year dustproofing warranty available for qualified projects.



## APPEARANCE

Concrete floor surfaces treated with one of the Duro-Nox liquid floor hardener/densifiers take on a finished or polished appearance that increases in gloss over time through use and with regular cleaning.





# HOW DENSIFIERS WORK

Duro-Nox densifiers penetrate deep into concrete surface pores where they chemically react with calcium hydroxide  $\text{Ca}(\text{OH})_2$  to produce water insoluble calcium silicate hydrate gels that fill surface pores to densify, harden and seal treated concrete floor surfaces.

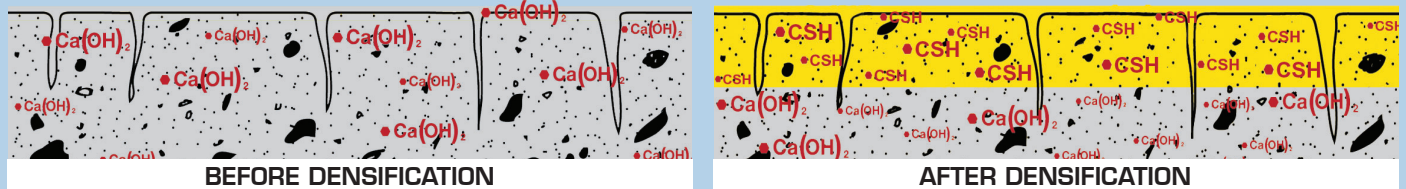
The controlled reactivity and reduced sensitivity of Duro-Nox densifiers to reactions with air and resulting whitening make it an excellent choice for application to burnished concrete floors and for final application to diamond polished concrete, including dyed, stained or colored concrete floor surfaces.

**Cement + Water**  $\longrightarrow$  **Calcium-Silicate-Hydrate (CSH) + Calcium Hydroxide  $\text{Ca}(\text{OH})_2$**

The formation of Calcium-Silicate-Hydrate (CSH) is expansive, resulting in reduced porosity and increased surface density.

**Calcium Hydroxide  $\text{Ca}(\text{OH})_2$  + Duro-Nox**  $\longrightarrow$  **Calcium-Silicate-Hydrate (CSH)**

Duro-Nox (silicate densifier) reacts with Calcium Hydroxide  $\text{Ca}(\text{OH})_2$  to create additional Calcium-Silicate-Hydrate (CSH) that fills in the voids and capillaries to create denser, harder concrete floor surfaces.



## A DURO-NOX VERSION FOR EVERY BUDGET AND APPLICATION

### DURO-NOX

Maximum performance, traditional sodium silicate liquid floor hardener and densifier.

### DURO-NOX HS

Maximum performance, hybrid lithium and potassium silicate, liquid floor hardener and densifier.

### DURO-NOX LS

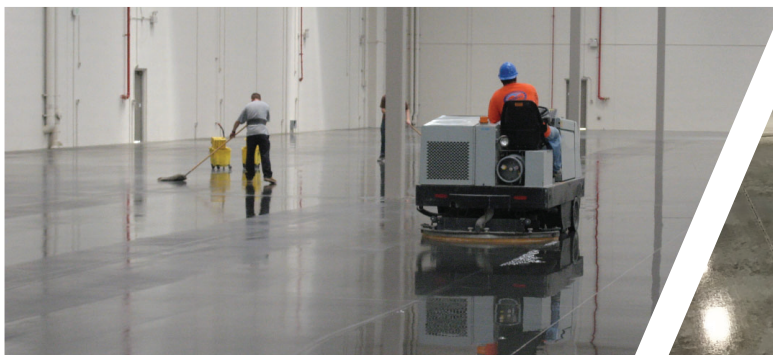
Maximum performance, lithium silicate liquid floor hardener and densifier.

### DURO-NOX HSC

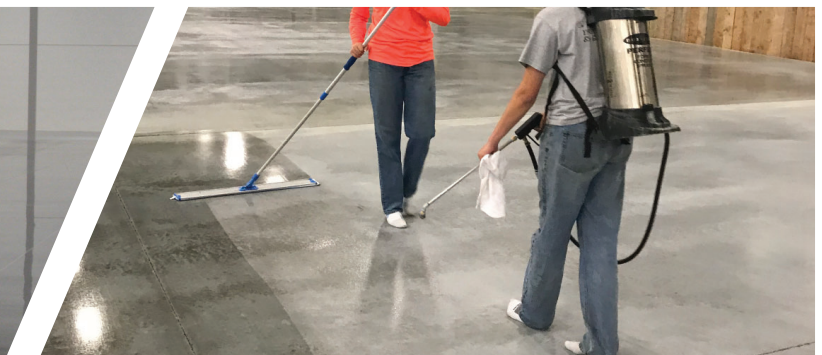
Standard performance, hybrid lithium and potassium silicate liquid floor hardener and densifier.

### DURO-NOX LSC

Standard performance, lithium silicate liquid floor hardener and densifier.



FIRST GENERATION SODIUM SILICATE APPLICATION



SECOND AND THIRD GENERATION LITHIUM SILICATE AND HYBRID APPLICATION

# USGBC/LEED COMPLIANT

The Duro-Nox line of liquid floor hardeners/densifiers are among only a small number of products that are LEED v4 certified.

This certification is especially important because companies using these products can earn indoor environmental quality credits through USGBC's (United States Green Building Council) LEED v4 standard.

**LEED v4 is the standard for green building design, construction, operations and performance.**

Certificates verifying our Duro-Nox line of liquid floor hardeners/densifiers as compliant products can be found on our website at [www.nox-crete.com](http://www.nox-crete.com).

As a proud member of LEED, Nox-Crete continues to be on the leading edge of producing sustainable and environmentally friendly products for the concrete industry.



**DURO-NOX DENSIFIERS EMIT ZERO VOCs**

## IDEAL USES FOR DENSIFIERS

- restaurants • event centers • sporting complexes • distribution centers • dairies
- large retail centers • office complexes • food processing plants • chemical plants
- breweries • meat packing plants • cold storage facilities • livestock facilities • bottling plants

