

# EFCO Form Guard & EFCO Form Release Product Training

## Presenter:

Jonas DeWeber • Forming Division Manager - Nox-Crete, Inc.  
Cell: (402) 657-5093 • [jdeweber@nox-crete.com](mailto:jdeweber@nox-crete.com)



chemical solutions to concrete problems

# Nox-Crete North American Sales Regions

**John Murray**  
NATIONAL SALES MANAGER - CANADA  
jmurray@nox-crete.com  
604-312-4468



**Stephen Linn**  
GREAT PLAINS REGION MANAGER  
slinn@nox-crete.com  
402-850-9523

**Ray Fete**  
GREAT LAKES REGION MANAGER  
rfete@nox-crete.com  
330-998-3289

**Michael Hartman**  
NORTHEAST REGION MANAGER  
mhartman@nox-crete.com  
540-541-8041

**Jason Cutsforth**  
NORTHWEST REGION MANAGER  
jcutsforth@nox-crete.com  
206-818-1337



**Shawn Stewart**  
SOUTHWEST REGION MANAGER  
sstewart@nox-crete.com  
909-471-2686

**Jonas DeWeber**  
FORMING DIVISION MANAGER  
jdeweber@nox-crete.com  
402-657-5093

**Jey Yates**  
SOUTHEAST REGIONAL SALES MANAGER  
jyates@nox-crete.com  
919-943-9553

**Jim Nowosad**  
FLORIDA REGIONAL SALES MANAGER  
jnowosad@nox-crete.com  
954-551-2227

# Nox-Crete Product Overview for EFCO

## EFCO Form Guard

- Designed to protect steel forms against corrosion for a minimum of 6 months indoor or 1 month outdoor

## Nox-Crete Bio-Clean Ready 6

- Used to remove EFCO Form Guard and other contaminants from form surfaces or to clean forms prior to EFCO Form Guard application in EFCO warehouse

## EFCO Form Release

- Reactive/barrier form release with rust inhibitor specifically formulated for superior performance on steel forms
- Can also be used on other form surfaces such as plywood, overlaid plywood, plastic and aluminum

## Nox-Crete Kem-Ex-It Plus

- Designed for removing surface corrosion from steel form surface
- Removes hardened concrete build-up
- Biodegradable

## Nox-Crete Blast-Off

- Product designed for removing hardened concrete build-up from steel form surface
- Non-corrosive to most metals except galvanized surfaces
- Biodegradable and environmentally safe

## Nox-Crete Blast-Off Neutralizer

- For use in neutralizing Blast-Off and Kem-Ex-It
- Reduces the potential for flash corrosion
- Biodegradable



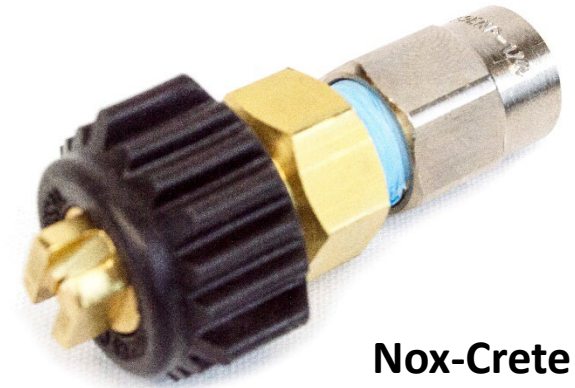
# Nox-Crete Product Overview for EFCO



**Nox-Crete  
Perfect Form  
Sprayer**



**Nox-Crete  
Blast-Off  
Pump Foamer**



**Nox-Crete  
Chapin  
Adapter Kit**



# EFCO Form Guard Performance

## No Preventative



Day 1

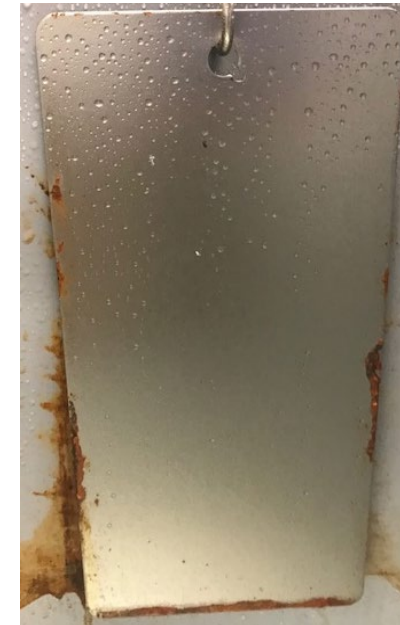


Day 14

## Protected with EFCO Form Guard



Day 1



Day 14

- 14 day saltwater spray test (7% sodium chloride or roughly twice the content of typical ocean saltwater)
- Heavier (multiple) applications of EFCO Form Guard will produce longer lasting protection

# Removal of Form Guard in the Field

## What to look for:

- If concrete appearance is important, removal of Form Guard may be necessary
- If Form Guard is present, treated form surface will feel greasy or gummy and may contain surface contaminants such as carbon, dirt or other debris that can interfere with concrete appearance
- If Form Guard has not been applied, form surface will be smooth and not greasy or gummy

## What to do:

- If removal of Form Guard is required, use Bio-Clean Ready 6
- EFCO Form Release is the recommended release agent regardless of whether or not Form Guard is removed



# Concrete Finish Requirements

## **Non-Architectural Concrete Finish:**

- Apply EFCO Form Release at 800 – 1,500 sf/gallon (20-37.5 sm/L)
- Use Chapin Model 1949 sprayer or equivalent with 95 – .5 (0.5 GPM) spray tip
- For best results, follow with microfiber mop or wipe with rag saturated with EFCO Form Release

## **Architectural Concrete Finish, or concrete with subsequently applied architectural coating:**

- Clean form surface with Bio-Clean Ready 6 using a scrub brush or stiff bristle broom and rinse thoroughly with clean water
- Immediately dry form surface with foam squeegee or blower
- Apply EFCO Form Release at 1,200 – 1,500 sf/gallon (30-37.5 sm/L) to clean, dry form surface
- Use Nox-Crete Perfect Form Sprayer with 8001 LP spray tip
- Follow with microfiber mop or wipe with rag saturated with EFCO Form Release



# Non-Architectural Concrete Finish - 1<sup>st</sup> Pour

- Apply EFCO Form Release at 800 – 1,500 sf/gallon (20-37.5 sm/L) using a Chapin Model 1949 sprayer or equal equipped with a 95 – .5 (0.5 GPM) spray tip
- For best results, follow spray application with microfiber mop or wipe with rag saturated with EFCO Form Release





# Non-Architectural Concrete Finish – 2<sup>nd</sup> Pour & Beyond

- Scrape any concrete build-up being careful not to scratch the metal surface
- Use burlap or rags to remove residual cement film
- Reapply EFCO Form Release utilizing same spray equipment and coverage rates



# Typical Finish & Form Appearance Following 1<sup>st</sup> Pour

## EFCO Form Guard factory application + EFCO Form Release field application

- Concrete will look cleaner if EFCO Form Release is wiped after application
- If EFCO Form Release is not wiped concrete color variation is likely to occur
- Contaminants that settle on the form surface while in storage at EFCO or the jobsite may also lead to a concrete color variation

Form after pour

EFCO FG applied at 1,700 sf/gal (42.5 sm/L)  
EFCO FR applied at 1,200 sf/gal (30 sm/L)



Concrete after pour

EFCO FG applied at 1,700 sf/gal (42.5 sm/L)  
EFCO FR applied at 1,200 sf/gal (30 sm/L)





# Architectural Concrete Finish

- Form Guard must be removed using Bio-Clean Ready 6 or equivalent cleaner/degreaser
- Pour Bio-Clean Ready 6 into low pressure sprayer equipped with Viton O-rings, gaskets, and seals
- Spray Bio-Clean Ready 6 on form surfaces at 200-300 sf/gal (5-7.5 sm/L)





# Architectural Concrete Finish

- Lightly scrub Bio-Clean Ready 6 using a broom followed by light rinse with garden hose and spray nozzle
- Alternatively let Bio-Clean Ready 6 dwell on form for 2 minutes followed by 1,500 psi or greater pressure wash





# Architectural Concrete Finish

- Use a foam squeegee or blower to accelerate form drying and to minimize potential for flash corrosion



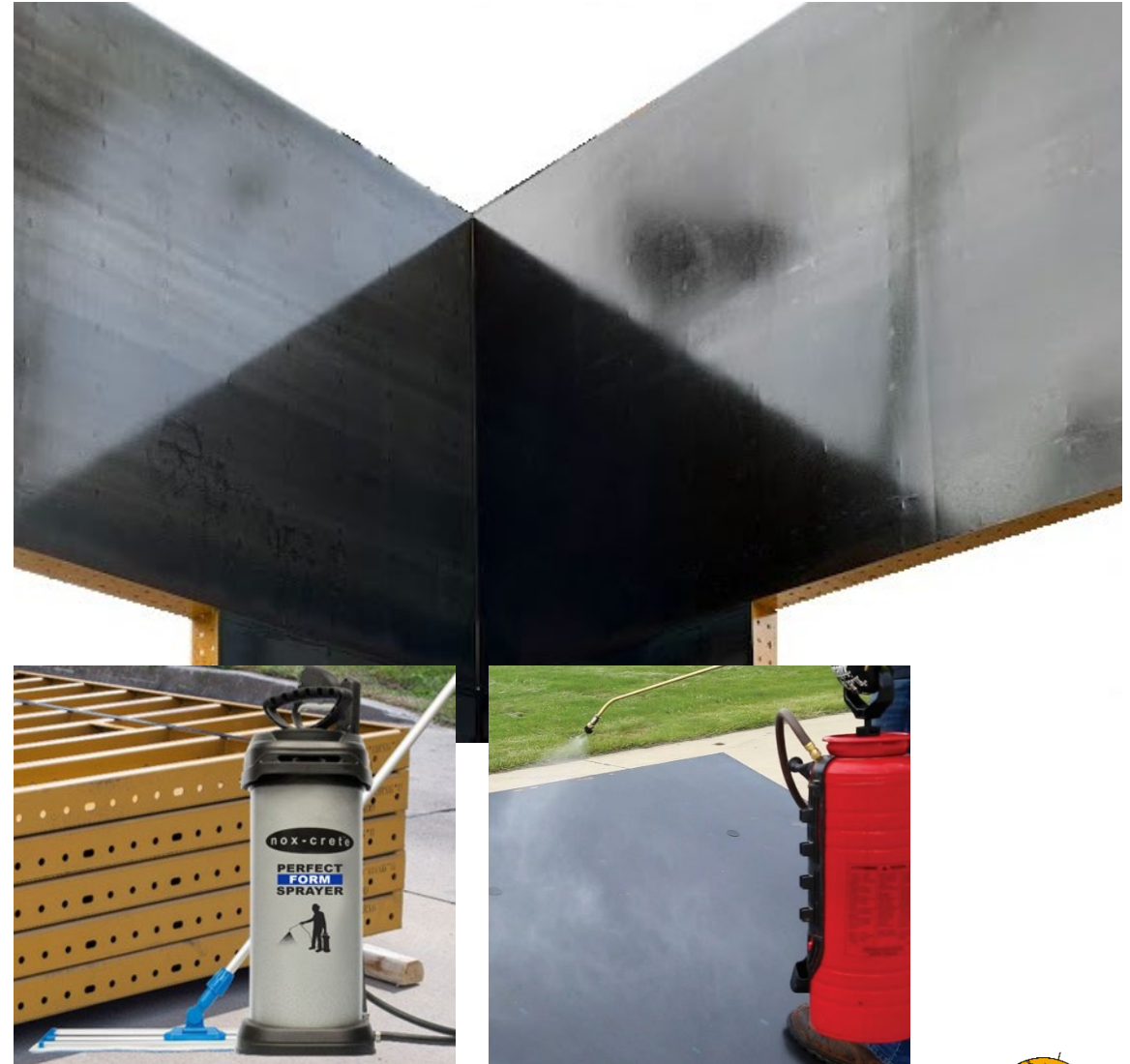
# Removing EFCO Form Guard with Bio-Clean Ready 6



# Architectural Concrete Finish

Once forms are dry, immediately apply EFCO Form Release:

- Application rate should be 1,200 – 1,500 sf/gallon (30-37.5 sm/L)
- Use Nox-Crete Perfect Form Sprayer with 8001 LP tip
- Follow with wet microfiber mop or wipe with rag lightly treated with EFCO Form Release





# Results of EFCO Form Release Applied Heavy

EFCO Form Release

*Form after pour*

800 sf/gallon (20 sm/L)



EFCO Form Release

*Concrete finish*

800 sf/gallon (20 sm/L)



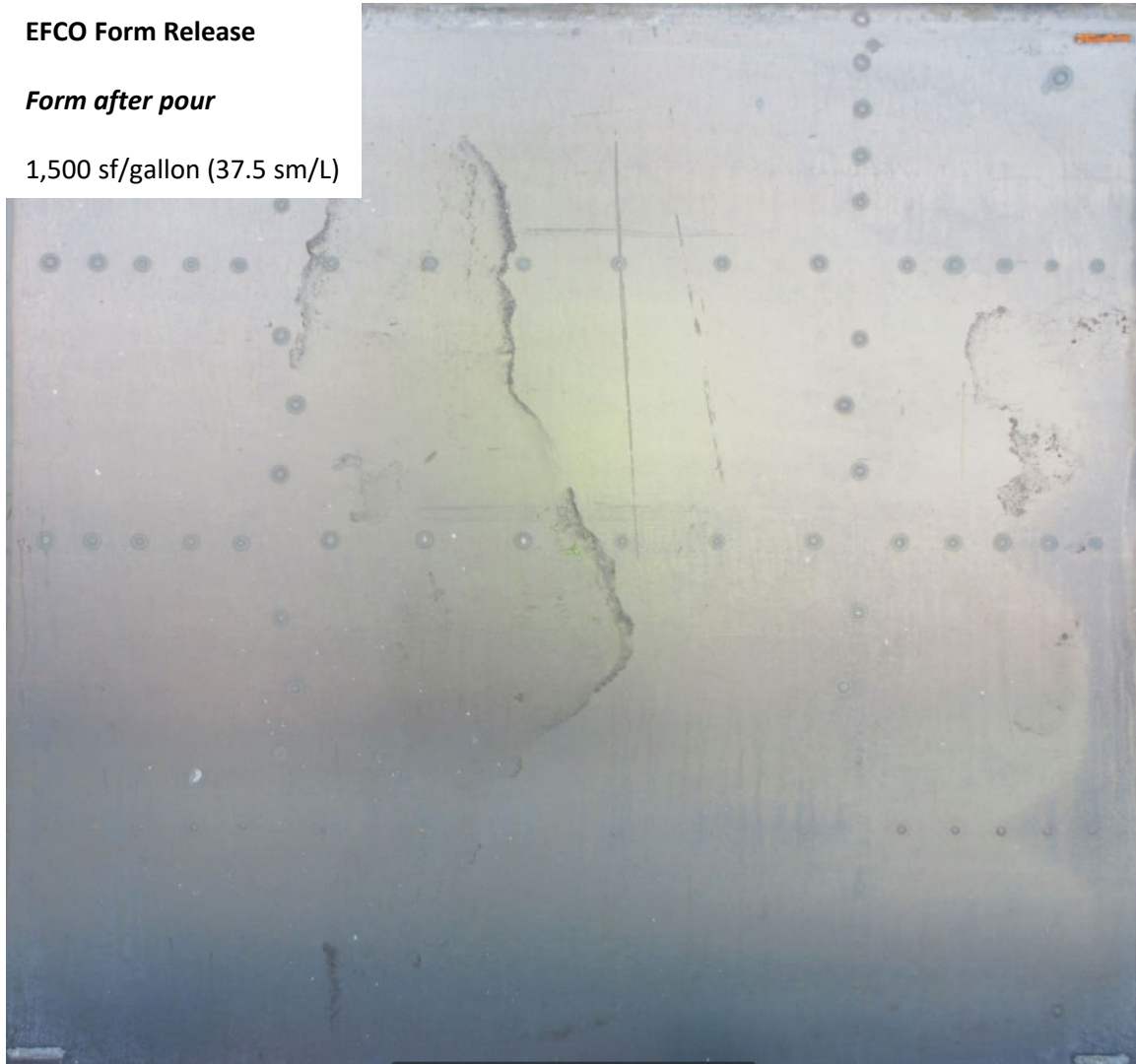


# Results of EFCO Form Release Applied Lightly

EFCO Form Release

*Form after pour*

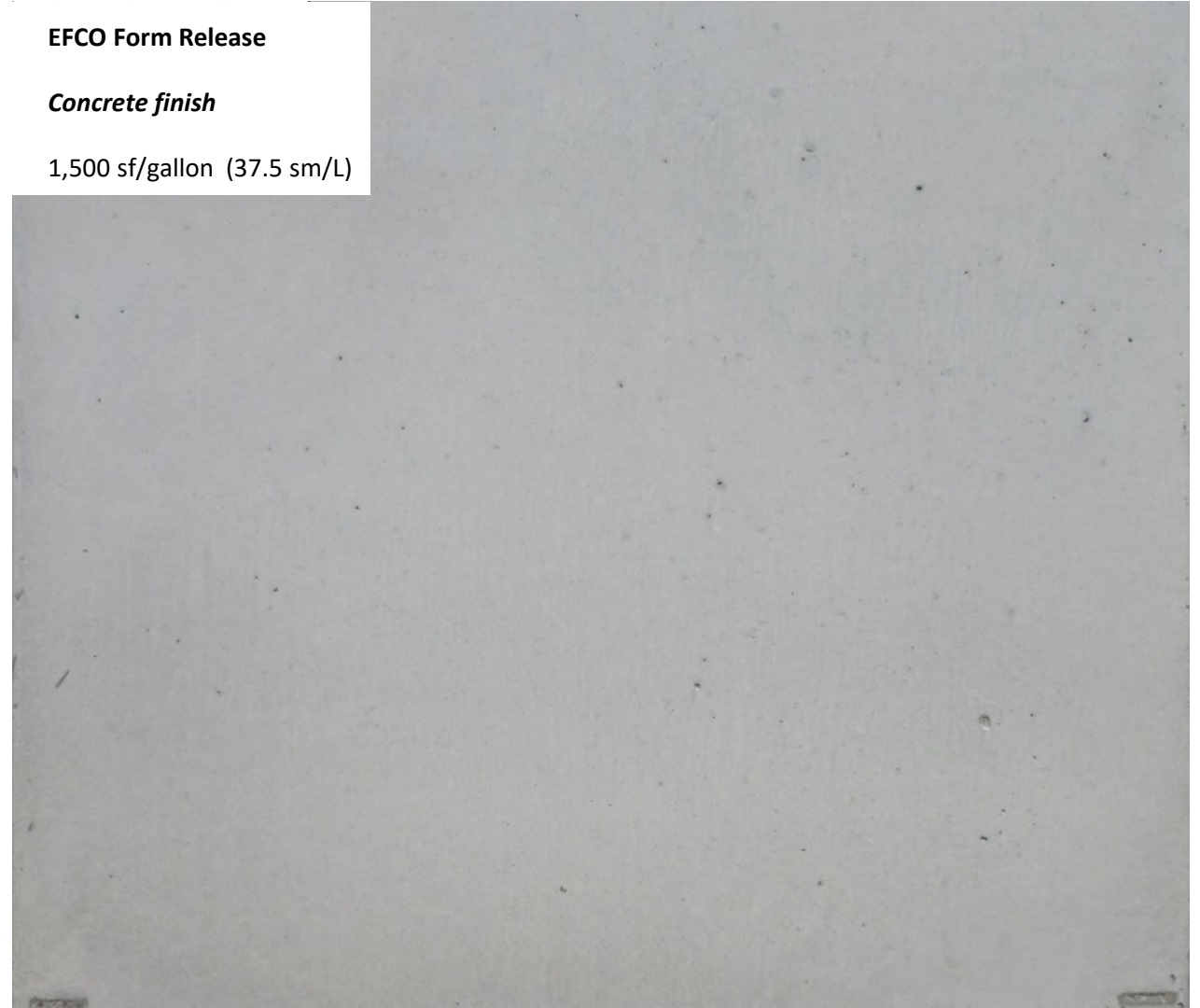
1,500 sf/gallon (37.5 sm/L)



EFCO Form Release

*Concrete finish*

1,500 sf/gallon (37.5 sm/L)



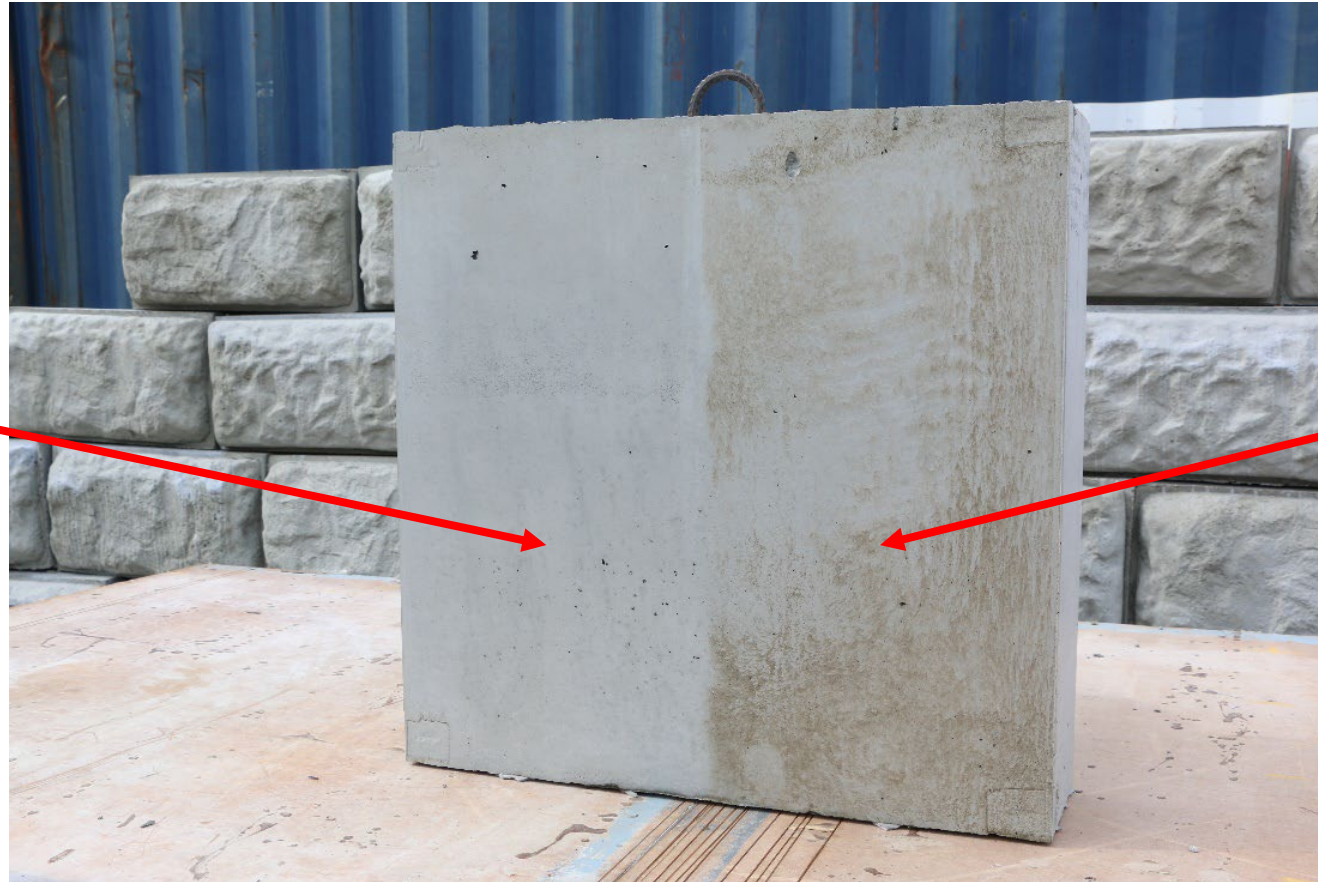
# Removing EFCO Form Guard Stains From Cast Concrete

- Apply Bio-Clean Ready 6 to surface of concrete at a coverage rate of 200 – 300 sf/gal (5-7.5 sm/L)
- Allow Bio-Clean Ready 6 to sit on surface of concrete for 2 minutes
- Gently scrub as required using a stiff bristle broom or scrub brush
- Do not allow Bio-Clean Ready 6 to dry on surface of concrete
- Proceed with caution as over-aggressive scrubbing can remove cement paste on the surface of the concrete, resulting in a rough and uneven surface texture.
- Rinse thoroughly using clean water
- Process may need to be repeated more than once for severely stained concrete



# Removing EFCO Form Guard Stains From Cast Concrete

EFCO Form Guard removed before concrete was cast against form



EFCO Form Guard not removed before concrete was cast against form

# Cleaning Stained Concrete with Bio-Clean Ready 6





# Maintenance Solutions for EFCO Form Owners

## Kem-Ex-It-Plus

- Dissolves surface corrosion on steel forms and creates a barrier film that provides temporarily protection against flash corrosion.
- Softens concrete buildup allowing easy removal with a pressure washer



## Blast-Off

- Incorporates a potent organic compound found in sugar cane and sugar beets that is highly effective at dissolving concrete buildup and splatter without damaging or corroding exposed steel, chrome, aluminum, or electrical components.



## Blast-Off-Neutralizer

- Contains a concentrated alkaline solution that quickly neutralizes Blast-Off or Kem-Ex-It Plus, allowing for safe disposal in a sanitary sewer
- Greatly reduces the potential for flash corrosion.

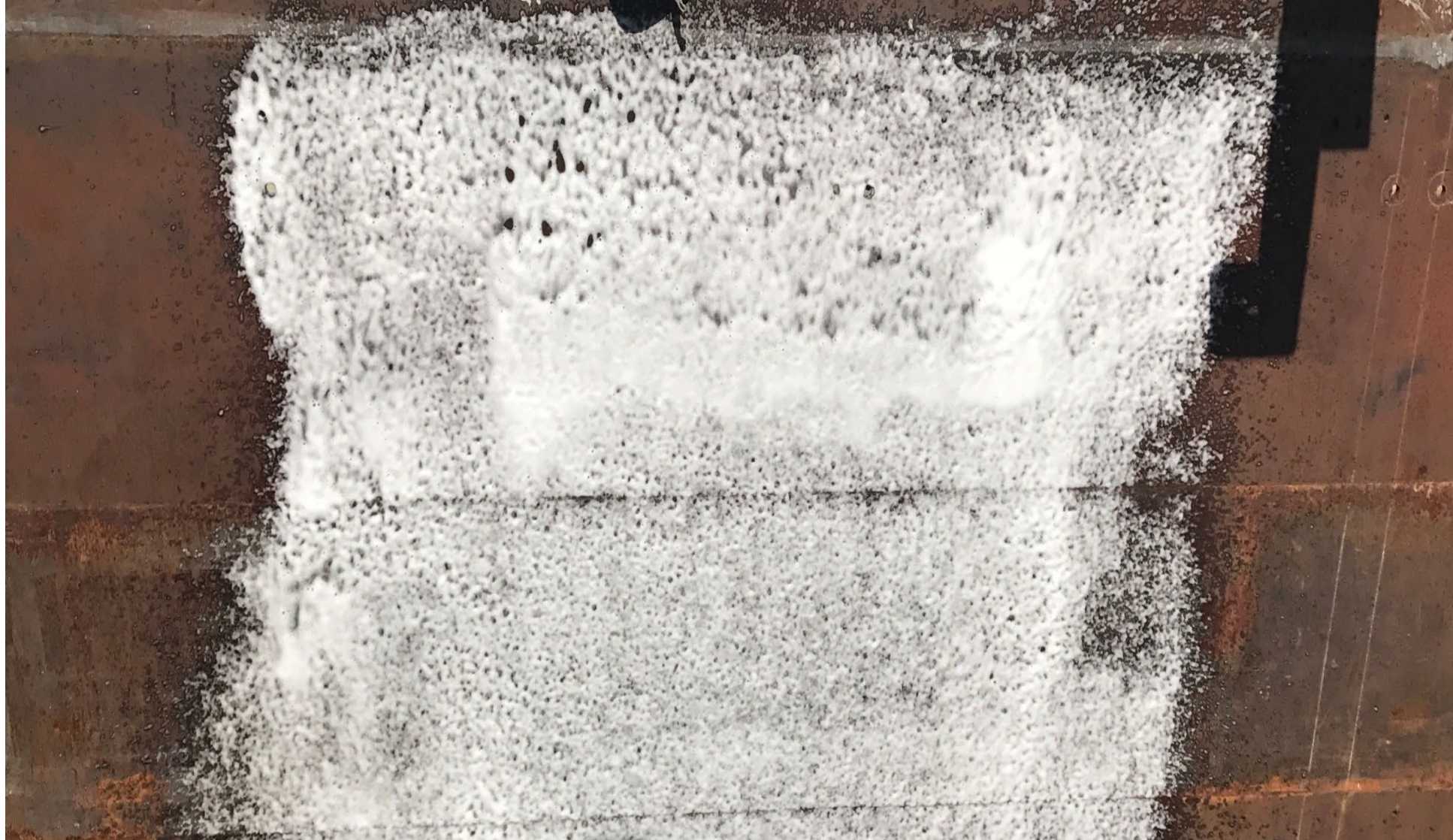


# Steel Form Before Treatment with Kem-Ex-It Plus





# Kem-Ex-It Plus Applied on Steel Form





# Steel Form Before and After Treatment with Kem-Ex-It Plus





# EFCO Form before Blast-Off Application





# Blast-Off Applied on Steel Form





# Softened Concrete After Blast-Off Application





# EFCO Form after Blast-Off Application



# Removing Concrete from Back of Forms with Nox-Crete Blast-Off

Blast-Off is Green Engineered, does not contain any mineral acids and is safe to use for concrete removal from most metal surfaces.





# Questions?



chemical solutions to concrete problems