

**nox-crete<sup>tm</sup>**

chemical solutions to **concrete** problems

PRECAST



## CASTING A BRIGHTER LIGHT ON CONCRETE

Nox-Crete has been a trusted provider of products for the precast industry for more than 60 years. Starting with the development of the world's first chemically active form release agent, Nox-Crete continues to develop, manufacture and market innovative products for the precast industry.

Whether your requirements call for a high performance architectural form release agent or the manufacture of an entirely new form system – Nox-Crete has a cost-effective, labor-saving solution for you.

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**CALL TODAY**  
FOR A FREE IN-PLANT  
DEMONSTRATION ON  
ANY OF OUR PRECAST  
PRODUCTS!

**(402) 341-2080**



# HIGH PERFORMANCE FORM RELEASE AGENTS

## RELEASE AGENT #10

- Petroleum Based

### **Maximum Performance Architectural Form Release Agent**

Produces architectural concrete surfaces free of staining with reduced surface void defects (bugholes). Ideal for form applications requiring an ultra-thin film release agent that is both fast drying and less slippery in horizontal deck applications. Available in a USEPA inherently biodegradable version that complies with OECD 301 and multiple other versions to meet all federal, state and local VOC requirements.

## PRECAST RELEASE #80

- Petroleum Based

### **Maximum Performance Form Release Agent**

Combines chemical and barrier components to produce architectural concrete surfaces free of staining with reduced surface void defects (bugholes). Ideal for use on steel forms in steam-curing applications or with sticky concrete mix designs containing high amounts of cement, fly ash, silica fume or high-range water reducers. Available in a USEPA inherently biodegradable version that complies with OECD 301 and multiple other versions to meet all federal, state and local VOC requirements.

## BIO-NOX

- Water Based

### **Maximum Performance, Readily Biodegradable Form Release Agent**

USEPA Readily Biodegradable – Complies with OECD 301. Produces architectural concrete surfaces free of staining with reduced surface void defects (bugholes). Unparalleled performance on most non-absorptive form surfaces. Ideal for use on all rubber, plastic or fiberglass forms and form liners and on all form surfaces sensitive to petroleum-based solvent attack. Complies with all federal, state and local VOC requirements.



**PRECAST RELEASE #80**



**RELEASE AGENT #10**



**BIO-NOX**

## STANDARD PERFORMANCE FORM RELEASE AGENTS

### PRECAST RELEASE EL

- Petroleum Based

**Economical, Chemically and Physically Active Concrete Form Release Agent**

Precast Release EL contains a physical barrier component, as well as chemically active compounds that react with lime (calcium hydroxide) present in fresh concrete. This yields a slippery soap film on the form surface that prevents concrete sticking and improves form stripping. Available in versions to meet all federal, state and local VOC requirements.

### DRY-CAST RELEASE

- Petroleum Based

**Dry-Cast Release Agent for Concrete Pipes, Masonry Units and Pavers**

USEPA Inherently Biodegradable – Complies with OECD 301. Chemically active formulation is economical for use in spray and dip tank applications. Contains no recycled materials and provides a crisp, clean release with no accumulation of concrete buildup on pallet or header rings. Available in versions to meet all federal, state and local VOC requirements.



RELEASE AGENT #10

### PALLET-NOX

- Water Based

**Economical, Concentrated, Dry-Cast Release Agent for Concrete Pipe, Masonry Units and Pavers**

USEPA Readily Biodegradable – Complies with OECD 301. Concentrated, chemically active formulation is economical for use in most dry-cast applications. Easily dilutes with water to achieve optimum results. Performs well in dip tank applications. Complies with all federal, state and local VOC requirements.

### CLEAN RELEASE

- Petroleum Based

**Economical Form Release Agent**

Combines both chemically active and barrier components resulting in a value engineered product designed to meet competitive market conditions. Combines good sprayability, low odor and the performance you expect from Nox-Crete. Complies with all federal and state and most local VOC requirements. Available in multiple versions with varying levels of chemical reactivity to accommodate the most difficult concrete mix designs.



PALLET-NOX



# SPECIALTY FORM RELEASE AGENTS

## ALUMI-NOX R

- Petroleum Based

### **Maximum Performance Form Release Agent for Aluminum Forms**

Produces superior concrete surfaces free of staining and surface voids. Minimizes form sticking and concrete buildup on form surfaces and panel edges. Performs well with concrete mix designs that use chemical and mineral admixtures such as fly ash and blast furnace slag. Chemically active – cleans forms through use. Also available in multiple versions to meet all federal, state and most local VOC requirements.

## FOAM RELEASE

- Water Based

### **Release Agent for Foam Forms**

Foam Release is a thickened combination chemically active and physical barrier-type release agent for use on foam that prevents concrete sticking to substantially reduce form-stripping time. Used on Expanded Polystyrene (EPS), extruded polystyrene, polyurethane and polyisocyanurate forms, knockouts and void formers. A bright colored, pH-sensitive pink dye is added to ensure uniform coverage. Complies with all federal, state and local VOC requirements.



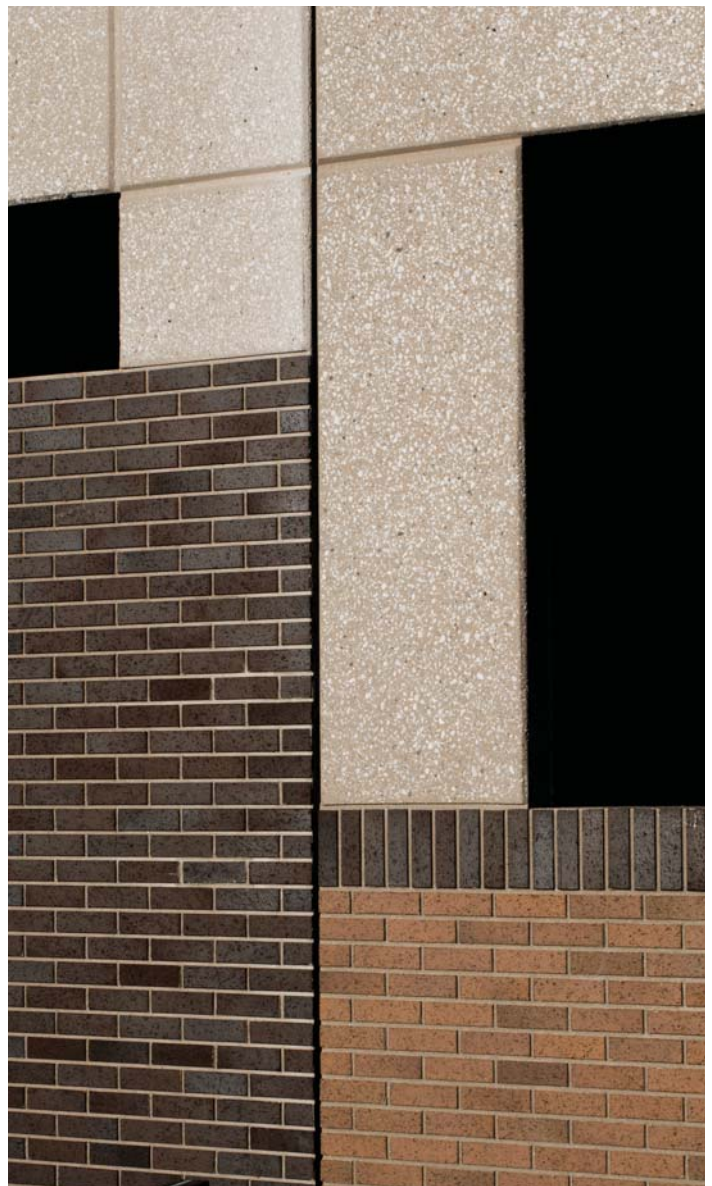
FOAM RELEASE

## BRICK RELEASE

- Water Based

### **Protective Treatment for Thin Brick**

A superior, cost-effective alternative to traditional thin brick waxing in precast applications. Protects the face of thin brick from concrete slurry staining. Much easier to apply and remove compared to wax. Does not require the use of hot water for removal. Complies with all federal, state and local VOC requirements.



BRICK RELEASE

## FORM AND EQUIPMENT MAINTENANCE PRODUCTS

### BIO-CLEAN PLUS

- Water Dilutable

**Consumer Products Compliant, Concentrated, Biodegradable, Citrus Based Stripper**

Bio-Clean Plus is a powerful, water dilutable stripper that penetrates form surfaces to safely and effectively remove oil, grease, dirt, adhesives and other residue.

### BLAST-OFF

- Water Based

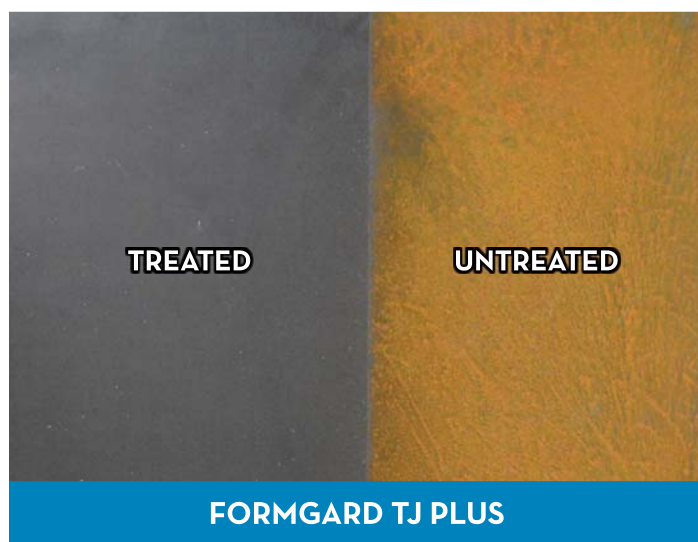
**Fast-Acting, Non-Corrosive Biodegradable Concrete Remover**

Fast-acting organic acid derived from sugar beets; contains no mineral acids. Quickly removes cement and concrete buildup on concrete forms, mixers, pumps, screeds, tools and more. Non-corrosive to equipment and electrical. Does not remove aluminum form seasoning when used to remove buildup on aluminum forms. Use with Nox-Crete's Pump Foamer.

### FORM ARMOR

**Protective Corrosion Inhibitor**

Prevents steel forms from rusting during long-term storage. Form Armor chemically reacts immediately after application to form a protective coating that is both chemically and physically welded to the form surface. Protects precast steel forms from rust corrosion for up to six months.



### FORM CLEAN

- Petroleum Based

**Dual Purpose Form Cleaner and Form Release Agent**

Form Clean chemically reacts with fresh concrete to prevent bonding while softening existing buildup on aluminum, steel, plastic, and overlaid plywood forms. Through repeated use, softened buildup is easily removed by a pressure washer, making Form Clean a cost-effective alternative to abrasive blasting, acid washing and scraping. Complies with all federal, state and local VOC requirements.

### DEACTIVATOR

- Petroleum Based

**The Original, Chemically Active Concrete Equipment Cleaning Compound and Maintenance Coating**

Deactivator chemically reacts with the alkalies in concrete to prevent fresh concrete from bonding and gradually soften existing concrete buildup. When applied to mixers, conveyors, pumps and other types of concrete handling equipment, Deactivator prevents the adhesion and accumulation of concrete buildup. Complies with all federal, state and local VOC requirements.

### KEM-EX-IT PLUS

**Rust and Concrete Buildup Remover**

Chemically breaks down and dissolves rust, concrete buildup and splatter on steel forms. Quickly removes rust resulting from forms left outside during storage. Eliminates the need for wire brushing or grinding. Deposits a protective chemical barrier on treated steel surfaces that protects forms against flash rust. Also available in a concentrated version called K-Concentrate.





## FORM SEALERS

### CLEAR PRE-FORM

- Low Build

***Penetrating, Moisture Cured Polyurethane Sealer for Wood Forms***

Seals and protects all types of wood. Prevents wood sugar migration and resulting concrete surface dusting and retardation. Preserves the natural texture of rough-sawn or embossed wood panels used to produce board-marked concrete.

### PRE-FORM HB

- High Build

***Flexible Polyurethane Coating System***

Used to overlay or resurface plywood or steel forms. Creates uniformly smooth surfaces by covering up all surface imperfections, screw holes, gouges, splits and cracks. Prevents wood grain pattern telegraphing of plywood forms onto formed concrete surfaces. Ideal for use on plywood form tables and in plywood gang-form applications.

### PRE-FORM 100

- Solvent-Free

***High Build, Self-Leveling Rigid Epoxy Coating for Sealing Plywood and Oriented Strand Board (OSB) Forms***

Seals and protects plywood and OSB wood panels in architectural casting bed applications. Allows for multiple reuses of sealed wood. Creates a rigid, impact-resistant casting surface that is seamless, smooth and long lasting. Available in clear, red and white for ease of application. Fast cure versions are also available.



PRE-FORM 100

## CURING COMPOUND

### BRO-CURE RTU

***Silicate Based Curing Compound***

An economical, inorganic curing compound that reacts with fresh concrete to cure by densifying the surface without changing the normal concrete surface texture. Bro-Cure RTU leaves no residue which could interfere with the bonding of subsequent surface treatments, eliminating the need for mechanical or chemical removal.

## EVAPORATION REDUCER

### MONOFILM

- Water Based

***Bleedwater Evaporation Reducer for Concrete***

Monofilm instantly forms a protective monomolecular layer across the surface of the concrete which effectively reduces surface moisture evaporation by up to 80%. Available in concentrated and ready to use versions.

## WATER REPELLANTS

### STIFEL GC / VC

- Water Based

***Single Component, Silane Sealer for Horizontal and Vertical Precast Concrete and Concrete Block and Brick Masonry***

Stifel GC and Stifel VC chemically react with siliceous materials found in concrete and masonry to form a hydrophobic barrier, preventing the absorption of water and waterborne chloride ions. The small molecular structure of the silane molecule allows it to move through concrete pores and penetrate deeply, up to 1/2" (12mm) or more. Protection is provided long after surface coatings and other "penetrating type" sealers have succumbed to abrasion or oxidation.



STIFEL VC

## PATCHING MATERIALS

### ACRYL-BINDER

**Single Component, Water Based, High-Strength, Acrylic Copolymer, Integral Admixture and Bonding Agent for Concrete**

As a polymer modifying admixture, Acryl-Binder provides a plasticizing effect which lowers the water/cement ratio and improves cement hydration resulting in substantially improved flexural, compressive and tensile strength properties. As a bonding agent, Acryl-Binder improves the bonding properties of freshly placed patching and overlay materials, allowing for improved adhesion in both thin and high build applications.

### ACRYLIC-PATCH

**Single Component, Acrylic Polymer Modified, Portland Cement Based, Fast Setting Repair Mortar**

Acrylic Patch incorporates a dry acrylic polymer, portland cement, special graded aggregates and a high range water reducer to maximize strength gain and improve longevity of patch.

### CONSTRUCTION GROUT

**Economical, High Strength, Portland Cement Based Non-Shrink Grout**

Construction Grout is a non-metallic, shrinkage controlled grout which incorporates special aggregates, admixtures and portland cement designed to minimize shrinkage and maximize strength.

### FEATHER PATCH

**Single Component, Acrylic Polymer Modified, Portland Cement Based Repair Mortar**

Feather Patch incorporates a dry acrylic polymer, portland cement, special graded aggregates and a special blend of admixtures to achieve maximum strength and substrate adhesion.

### PANEL PATCH

**Fast Drying, Smooth Textured, Non-Grit Containing, Portland Cement Based, Polymer Modified, Concrete Resurfacing and Finishing Compound**

Panel Patch incorporates a unique blend of portland cement, acrylic polymer modifiers and ultra-fine aggregates resulting in a fast drying, smooth textured, high strength patching, resurfacing and finishing compound.

### PRECISION GROUT

**High Performance, High Strength, Shrinkage Compensated, Non-Shrink Grout**

Precision Grout combines a unique blend of cements formulated to compensate for shrinkage and special non-metallic mineral aggregates to allow controlled expansion with maximum strength.

### RAPID ROCK

**Fast Setting, Non-Shrink, Expansive Type, Calcium Aluminate Cement Based Anchoring Grout**

Expansive type hydraulic cements chemically react to set in less than 20 minutes. Hardens quickly, developing excellent pull-out strength.

### VERTICAL PATCH

**One or Two Component, Portland Cement Based, Vertical and Overhead Repair Mortar**

Can be mixed with water or with Acryl-Binder (sold separately for improved substrate adhesion and increased flexural strength. Thixotropic viscosity permits high-build lifts when patching vertical or overhead.

### VINYL-HESIVE

**Reemulsifiable, Water Based, Polyvinyl Acetate (PVA) Bonding Agent and Admixture for Concrete Patching Mixes, Stucco and Plaster**

As a bonding agent, Vinyl-Hesive increases the bonding properties of freshly placed patching and overlay materials to the substrate, improving the durability of repairs. As an admixture, Vinyl-Hesive improves the strength and adhesion properties of applied materials.





## APPLICATION EQUIPMENT



### MICROFIBER APPLICATOR

#### *Product Applicator*

A heavy duty, commercial microfiber applicator with aluminum frame and telescoping pole. Used to even out spray applications of release agents on precast forms to produce bright white concrete finishes. Microfiber pads are available in 24 inch (61cm) and 36 inch (91cm) sizes.



### HAND PUMP FOAMER

#### *Hand Pump Foamer*

A heavy-duty polypropylene tank and gun specifically designed for application of Blast-Off and Kem-Ex-It Plus to produce a rich foam that clings to vertical surfaces. Equipped with a wide mouth and funnel cap for easy filling, Viton® seals for extended durability and a built-in pressure relief valve. The Hand Pump Foamer maximizes the performance of Blast-Off concrete buildup and splatter remover and Kem-Ex-It Plus rust and concrete buildup remover.



### PERFECT FORM & CONCRETE SPRAYER

#### *Precast-Grade Hand Pump and Compressed Air-Filled Sprayer*

Perfectly designed for applying Nox-Crete concrete form release agents. Can be hand pumped or charged from an external air source to a maximum pressure of 116 psi (800 kPa). Uses inline regulator and check valve to regulate spray tip pressure to achieve a uniform spray pattern. Equipped with a heavy-duty stainless steel tank, stainless steel wand and trigger valve, two in-line filters, air pressure gauge, spare parts container, chemically resistant hose, seals and gaskets and a backpack style carry strap.



### EXCEL 130 CONCRETE FORM SPRAYER

#### *Heavy-Duty, Compressed Air-Filled Precast Form Release Agent Sprayer*

A high-pressure sprayer developed specifically for applying Nox-Crete form release agents that can be filled with compressed air up to 130 psi (900 kPa). Uses Constant Flow (CF) valves to regulate spray tip pressure to achieve a uniform spray pattern. Equipped with two filters, heavy-duty 5 gallon (19L) stainless steel tank, trigger valve, stainless steel wand, chemically resistant seals and gaskets and a carrying strap.



### ULTIMATE CART FORM SPRAYER

#### *Heavy Duty Compressed Air Tank Cart Sprayer*

Designed for continuous, high-pressure application of Nox-Crete's form release agents. The 12-gallon (45L) air tank, capable of 150 psi (10.3 bar), makes it easy to maintain consistent spray pressure for uniform product application. Can be pushed by hand or moved by crane, making it ideal for precast plant applications. Equipped with a 50 foot (15m) hose, stainless steel tank, trigger valve, two filters and chemically-resistant seals and gaskets.

## MAGNET CLAMPS, ALUMINUM SIDE FORMS AND ACCESSORIES

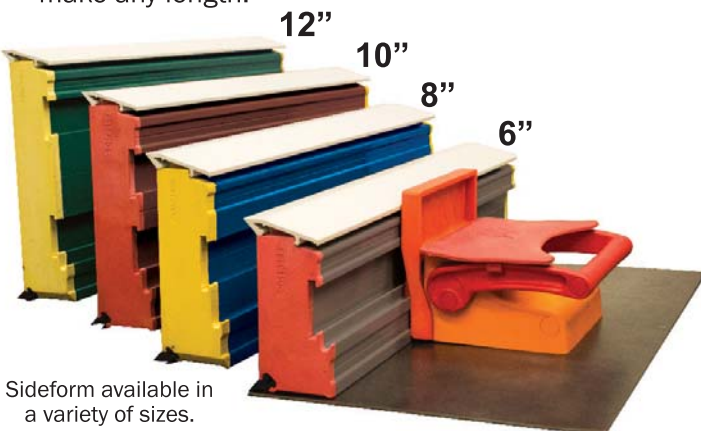
**NOX-CRETE IS THE EXCLUSIVE DISTRIBUTOR OF SRB TITAN MAGNET CLAMPS AND SPARTAN SIDEFORMS**

### TITAN MAGNET CLAMPS

- Stronger - 4,000 lbs. (1,800kg) of pull-down force and a shear force load resistance of over 1,000 lbs. (450kg)
- Uses a three-step adjustable handle that cycles magnet between engaged, semi-engaged and disengaged positions. The unique “semi-engaged” position enables the magnet to be easily moved while still engaged with the steel casting bed.
- Smaller and lighter - weighs only 8.4 lbs. (3.8kg)
- Rubber base skirt fully seals underside of housing to protect against dirt and other contaminants.
- De-Magnetizing plate safely secures magnet to prevent it from unexpectedly engaging.
- Easy to clean - magnet housing is manufactured from non-stick, glass reinforced plastic with a hinged rubber flap to protect against concrete splatter.
- Compact dimensions

### SPARTAN SIDE FORMS

- Manufactured using lightweight, high tensile 6082 and 6005A aluminum alloys.
- Epoxy powder-coated for easy cleaning.
- Magnet securing rail securely holds side form to magnet.
- Available in color-coded 4, 6, 8, 10 and 12 inch profiles and metric equivalents.
- Incorporates an interchangeable rubber base seal to prevent concrete bleed water seepage eliminating the need for silicone caulking.
- Available in 0.5 inch x 0.5 inch and 0.75 inch x 0.75 chamfer and square edge profiles and metric equivalents.
- Standard 19ft (5.8m) lengths - Add joiner plates to make any length.



### SPARTAN ACCESSORIES

#### Sideform Capping

- Allows user the flexibility to change sideform height by simply adding the appropriate side form caps.
- Available in 0, 0.5 and 1.0 inch height increments with 0.5 inch and 0.75 inch built-in chamfer and metric equivalents.
- PVC capping easily snaps on and off Spartan Sideform.

#### Internal and External Corner Kit and End Caps

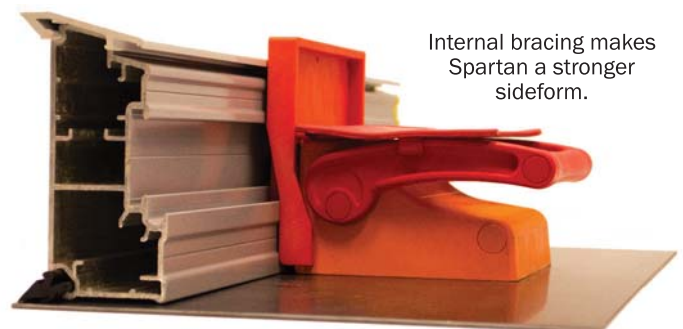
- Quickly and easily connects two Spartan Sideforms to make a 90 degree interior or exterior corner.
- Allows for infinite door and window design options.
- Color-coded to match various sideform height profiles.

#### Magnet Adapter Plates

- Attaches to Spartan Sideforms to securely connect with Titan Magnet Clamps.
- Numerous other adapter plates available to connect with all types of sideforms (wood, steel or other).

#### Sideform Joiner Plates

- Securely connects Spartan Sideforms and internal corner system for a temporary or semi-permanent connection.





# MOLDTECH FORMS AND EQUIPMENT

## HIGH-PERFORMANCE, CUSTOM DESIGNED, PRECAST EQUIPMENT

Nox-Crete is the North American sales representative for Moldtech Forms and Equipment for the prestressed and precast concrete industry. Moldtech's products include custom-designed and built fixed steel casting tables, tilting tables, battery molds, staircase forms, underground utility forms, prestressed bridge girder forms, double tee beam forms, column forms and equipment. Moldtech offers a full-service approach, including design, manufacture,

on-site installation and test production and after-sales service.

With 30 years of experience and an ISO 9002-certified manufacturing facility, Moldtech has the innovation and capability to manufacture forms and equipment to meet the precast and prestressed concrete industries' most difficult challenges.



**TILTING TABLE**



**BOX CULVERT FORM**



**BEAM FORM**



**DOUBLE TEE FORM**



## HISTORY



CARL LINN IN THE LABORATORY



DEACTIVATOR • FORM COATING

### THE CONCRETE CHALLENGE

In 1956, while working for a lubricant company, chemist Carl Linn observed precast producers using the company's oil and grease compounds to prevent concrete from bonding to forms. Not only were the compounds difficult to work with, but concrete build-up and splatter continued to accumulate on form surfaces and concrete surfaces appeared stained and discolored. Precast producers struggled with these issues for years, but Linn had an idea.

### OUR CHEMICAL SOLUTIONS

Carl developed a chemically active release agent, Nox-Crete Form Coating, and a chemically active form maintenance product, Deactivator. With Nox-Crete Form Coating, precast producers produced better looking concrete and spent less time cleaning their forms.

With Deactivator, concrete buildup was safely and easily removed from mixers, conveyors and equipment. And so, Nox-Crete's passion for solving concrete professionals' challenges was born.

### STILL INNOVATING WORLDWIDE

Today, Nox-Crete continues to manufacture chemical solutions to concrete problems. While still manufacturing the original Nox-Crete Form Coating and Deactivator, we have expanded our product line to include over 100 different products spanning six different market segments that are sold through a worldwide network of distributors and dealers.

Following Carl Linn's example, we continue to rely on our customers for new product ideas. Our chemists and engineers examine field problems and develop solutions in our laboratory.

This passion for innovation is found in the quality and performance of all Nox-Crete products.

### CONCRETE MARKETS WE SERVE

- Application Equipment
- Curing
- Decorative
- Equipment Maintenance
- Flooring
- Forming
- Grouts and Repair Mortars
- Plywood form OEM
- Precast
- Tilt-Up
- Waterproofing



chemical solutions to concrete problems

