

NAUGARD

# BIO-XL™

SUSTAINABILITY WITHOUT COMPROMISE.



ULTRA-ACCELERATOR FOR  
**TECHNICAL  
RUBBER GOODS**

MANUFACTURING EXCELLENCE  
PRODUCT PERFORMANCE  
GLOBAL FOOTPRINT

**SI Group**

# INTRODUCING NAUGARD BIO-XL™:

An ultra-accelerator that contains over

**85% BIO-BASED MATERIALS**

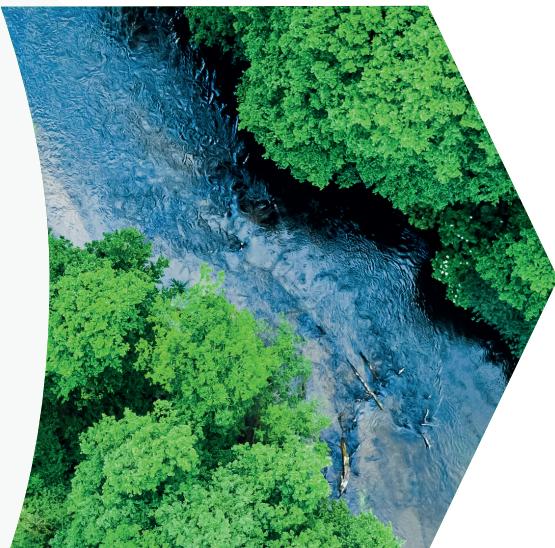
Developed as part of our continued focus on sustainability.



## BIO-SOURCED TECHNOLOGY:

SI Group's NAUGARD BIO-XL™ ultra-accelerator is a game-changing innovation that uses bio-sourced technology without compromising performance. Designed with the future of the rubber industry in mind, NAUGARD BIO-XL™ is an environmentally friendly, high-efficiency solution.

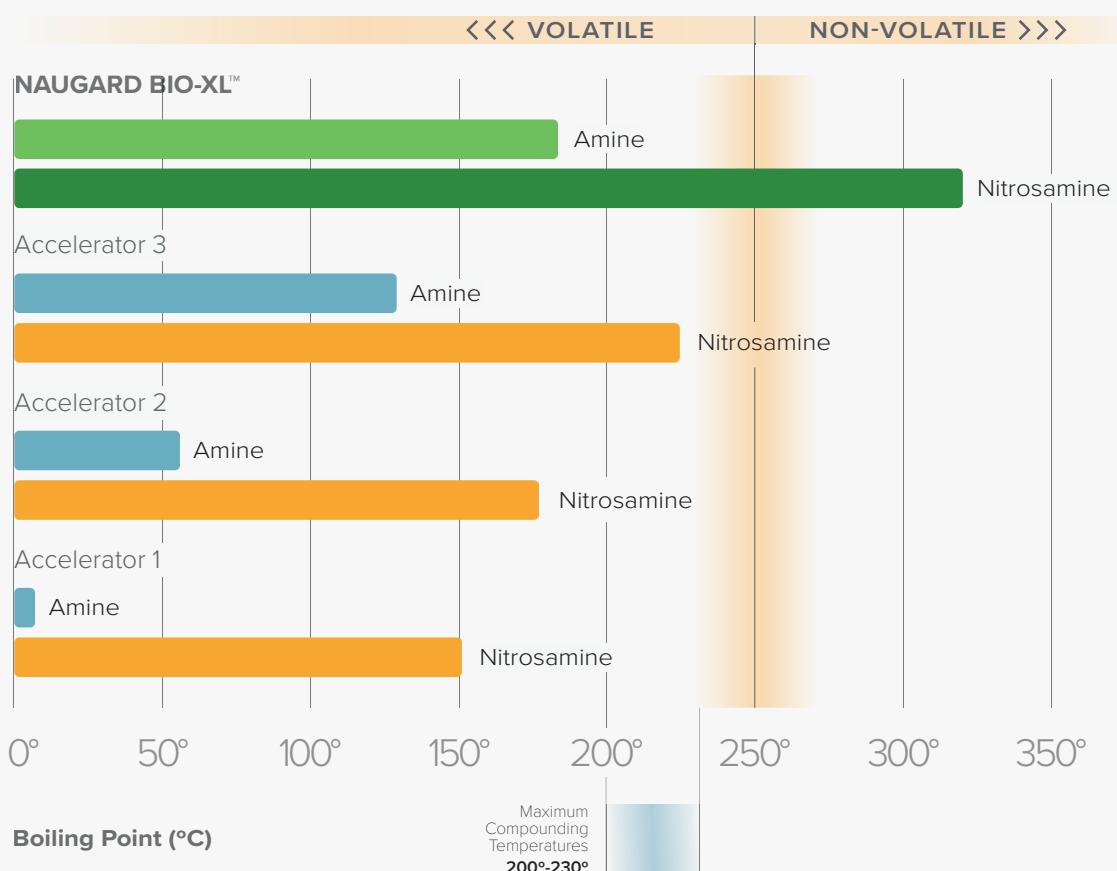




## SAFETY RESULTS:

NAUGARD BIO-XL™ ultra-accelerator is free from Substances of Very High Concern (SVHC).

### NAUGARD BIO-XL™ does not generate harmful nitrosamines\*



Volatility of Amines and Their Corresponding Nitrosamines.

\*As listed in TRGS552.

# OPTIMIZING PERFORMANCE:

By optimizing cure characteristics and crosslinking efficiency, NAUGARD BIO-XL™ ultra-accelerator effectively enhances the performance of rubber products regarding their durability, resilience, and overall quality.



# KEY PERFORMANCE ADVANTAGES:



Faster curing at enhanced scorch safety

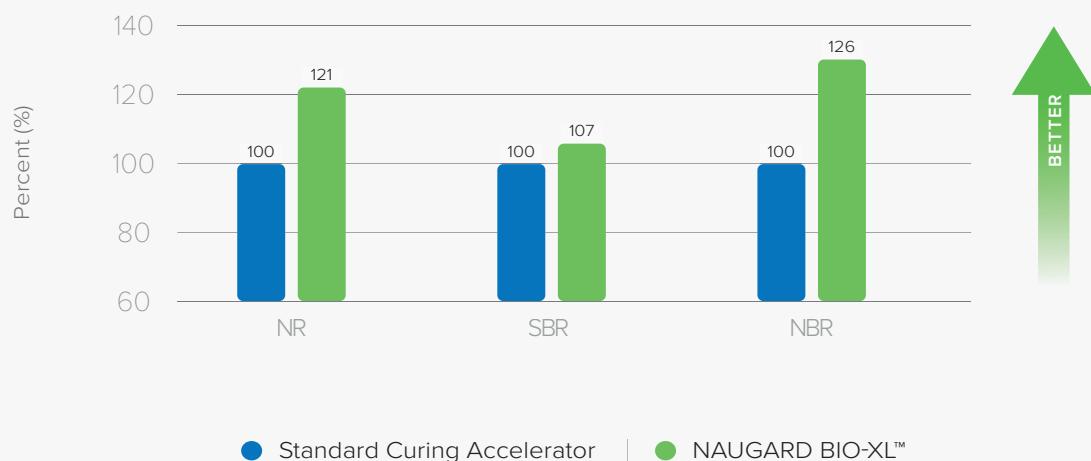


Improved crosslinking efficiency



No harmful nitrosamines

## Scorch Time/Cure Time - Process Efficiency



Experience faster curing while maintaining scorch safety, reduced blooming and discoloration, and diminished smell, odor, and volatile organic compounds (VOC). NAUGARD BIO-XL™ ultra-accelerator boasts higher elongation at break and lower compression set, as well as improved solubility and dispersion in rubber compounds. It also offers greater heat resistance, superior aging properties, compatibility with a wide range of rubbers, and suitability for both black and colored applications.





# APPLICATIONS:

NAUGARD BIO-XL™ ultra-accelerator can be useful in a variety of applications, such as:

## AUTOMOTIVE INDUSTRY



tires, hoses, seals, gaskets, and belts

## CONSUMER GOODS



footwear, sports equipment, and rubberized grips

## CONSTRUCTION



rubberized roofing, waterproof membranes, and expansion joints

## MEDICAL INDUSTRY



surgical gloves, tubing, and rubber-based medical devices

## ELECTRONICS



rubber insulation for wires, cables, and connectors

## INDUSTRIAL EQUIPMENT



conveyor belts, vibration dampeners, and grommets

## AGRICULTURE



rubber boots, irrigation hoses, and rubber mats

## MARINE APPLICATIONS



rubber seals, dock bumpers, and boat fenders

By incorporating NAUGARD BIO-XL™ into these applications, manufacturers can enhance the performance and sustainability of their rubber products.

SI GROUP'S COMMITMENT TO

## SUSTAINABILITY AND PERFORMANCE:

We are a global leader in the innovative technology of performance additives, process solutions, active pharmaceutical ingredients, and chemical intermediates. Our solutions cater to a wide array of industries and applications, delivering remarkable outcomes. We add value by elevating the quality, performance, and longevity of numerous everyday items. We are sustainability without compromise.

## NEXT-GEN TECHNOLOGY



**NAUGARD BIO-XL™** represents next-generation ultra-accelerator technology that pushes the envelope

OF IMPROVED

sustainability

&amp;

performance

solidifying its position as a game-changer in the rubber industry.

# CONCLUSIONS



## HIGH PERFORMANCE

ultra-accelerator with improved sustainability

- Does not form harmful nitrosamines
- Optimized cure characteristics
- +85% Bio-Sourced

Samples available in 70% active solid form.

FOLLOW US ON



#AcceleratedSustainability

NAUGARD  
**BIO-XL™**

For more information visit  
[siigroup.com](http://siigroup.com)

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PRODUCT PERFORMANCE  
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**SI Group**