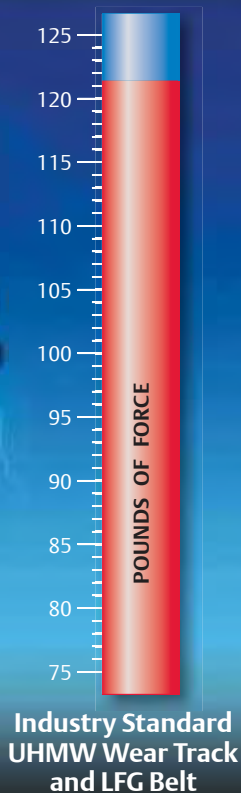
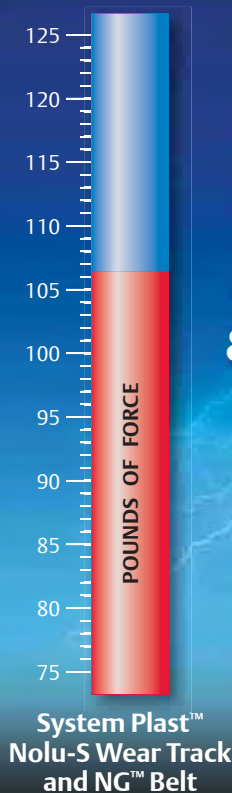




# See The Energy Difference!

**System Plast™  
Nolu-S Wear Track  
& NG™\* Belts Reduce  
Coefficients of Friction  
& Energy Consumption**



\* New Generation™ Material



**EMERSON™**  
Industrial Automation

**EMERSON. CONSIDER IT SOLVED.™**

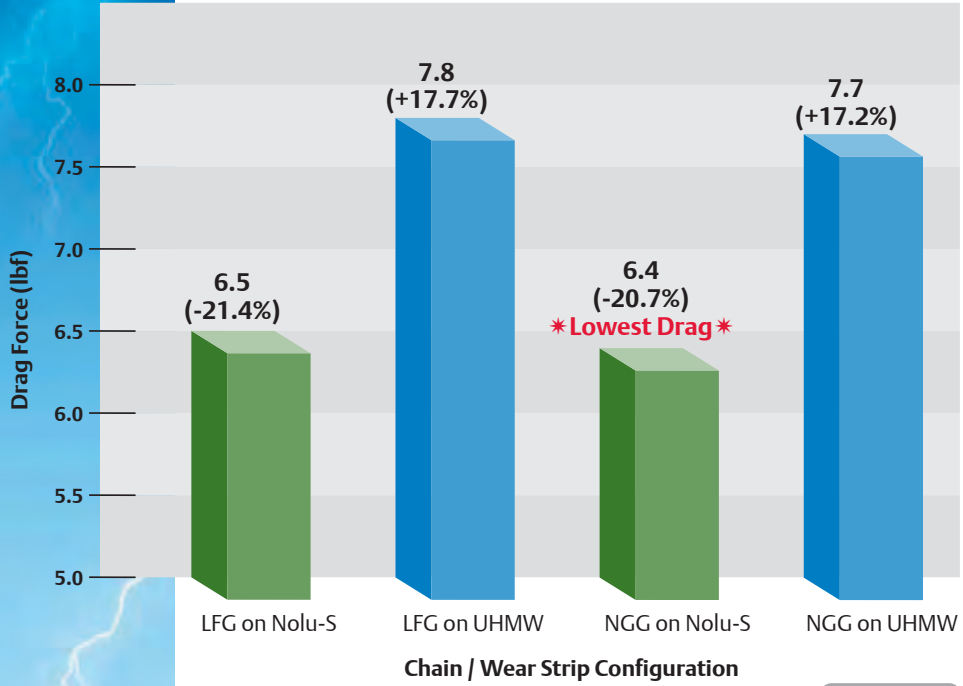
# Proof of Concept

(Emerson Test Lab Data)

Load Comparison of NGG and LFG Conveyor Chain  
on UHMW and Nolu-S Wear Strips

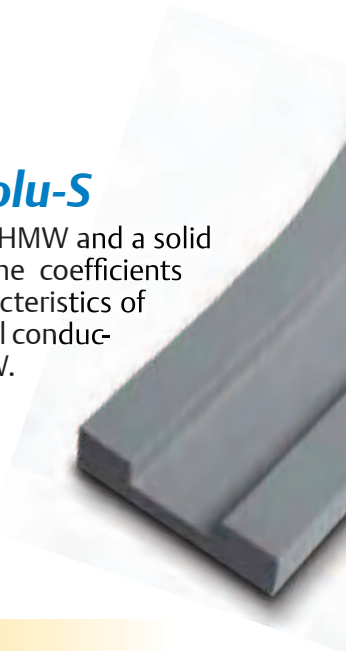
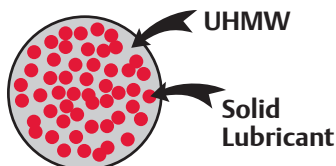
Configuration	Drag Force (lbf)	Torque (in-lbf)	Increase	Decrease
LFG on Nolu-S	6.5	25.0	-	21.4%
LFG on UHMW	7.8	30.4	17.7%	-
NGG on Nolu-S	6.4	24.8	-	20.7%
NGG on UHMW	7.7	29.9	17.2%	-

Drag Forces Between NGG and LFG Chain  
on Nolu-S and UHMW Wear Strips



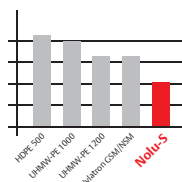
## What is Nolu-S

Nolu-S is a unique compound of UHMW and a solid lubricant. It drastically reduces the coefficients of friction while maintaining characteristics of UHMW. Nolu-S has a better thermal conductivity compared to standard UHMW.

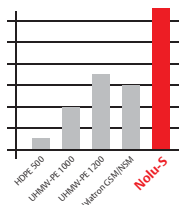


### Benefits and Features\*

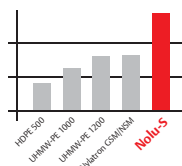
- Nolu-S makes very high speeds possible, especially when running dry.
- Nolu-S has an extremely low coefficient of friction.
- Nolu-S reduces noise and squeaking.
- Nolu-S reduces chain pull.
- Nolu-S extends the life of the chain.
- Nolu-S does not damage or scratch the surface of PET.
- Nolu-S reduces energy consumption.
- Nolu-S is UHMW-PE 1000 with a solid lubricant and FDA approved.



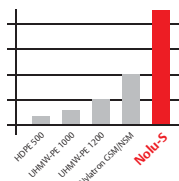
**COEFFICIENT OF FRICTION**  
(AVERAGE)



**RELATIVE WEARLIFE**



**MAX SPEED**  
MAX. RECOMMENDED SURFACE SPEED (DRY - ACETAL LF CHAIN)



**PV - LIMIT**

\*When properly applied

**SYSTEM  
PLAST**

## ***Nolu-S Wear Strips and Guides***

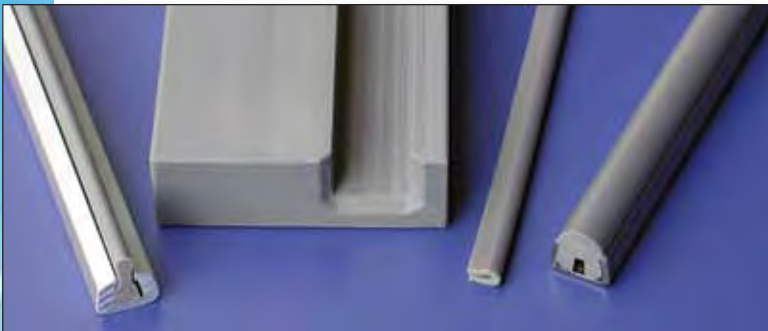
Nolu-S is a blend of UHMW and other dry lubricants that maintain good wear characteristics while significantly reducing coefficients of friction. Its unique self-lubricating properties make it suitable for applications requiring reduced friction, noise reduction, and higher dry-running speeds.

### ***Features:***

- Extruded or machined
- Very low coefficient of friction - promotes material flow
- High-impact strength
- Chemical resistant with minimal moisture absorption
- FDA & USDA approved ingredients
- Noise suppressant
- Easy to machine – most general power tools are sufficient

### ***Benefits:\****

- Extends the life of mating surfaces
- Lowers mating surface scratching or damage
- Reduces energy consumption
- Minimizes product pulsation on conveyors
- Low noise operation

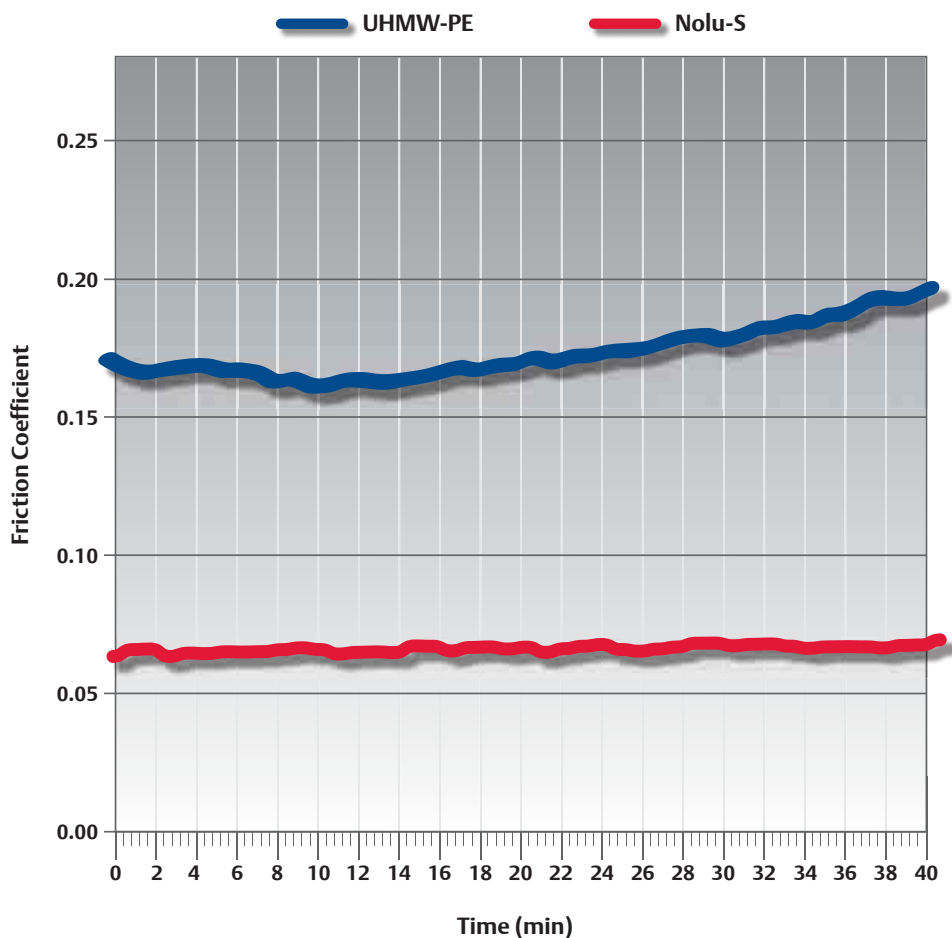


\*When properly applied

**SYSTEM  
PLAST**

## Nolu-S Makes a Difference!

*Less Friction Compared to UHMW-PE*



## Plastic Belt Material Definitions

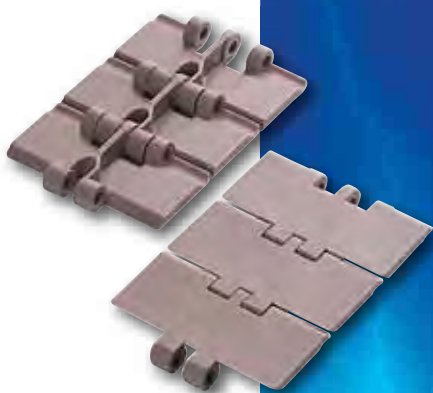
### LF, LFG, LFB, LFW

#### Low Friction Acetal Resin

This material is commonly used in the market and offers an improved coefficient of friction. Suitable for use in high speed applications.

**Color:** Light Brown (LF), Dark Grey (LFG), Blue (LFB) or White (LFW)

*This material is FDA (Food and Drug Administration) approved for direct contact with food.*



### NG™, NGG

#### New Generation™

Extra performance PBT with the lowest coefficient of friction in our range, resulting in medium strength and optimum wear resistance, along with reduced plate wear and reduced pitch elongation. Suitable for high speed and dry running applications. NG™ material should not be exposed to high humidity levels or wet conditions at temperatures above 140°F. Available in flat top chain exclusively from System Plast.

**Color:** Green (NG™ Chain) or Light Grey (NGG Modular Belt)

*This material complies with Directive 2002/72/CE of August 6, 2002 related to materials designed for direct contact with food. It also complies with the "Code of Federal Regulation", published by the FDA (Food and Drug Administration).*

*Note: NGG prefix is used on Modular plastic belt and NG™ prefix is used on plastic chains. They both are "New Generation"™ material.*



## ***NG™ Makes a Difference on Modular Belts and Chains!***

NG™ is an extra performance PBT thermoplastic material developed by System Plast for modular plastic belts and chains



### **NG™ material features:**

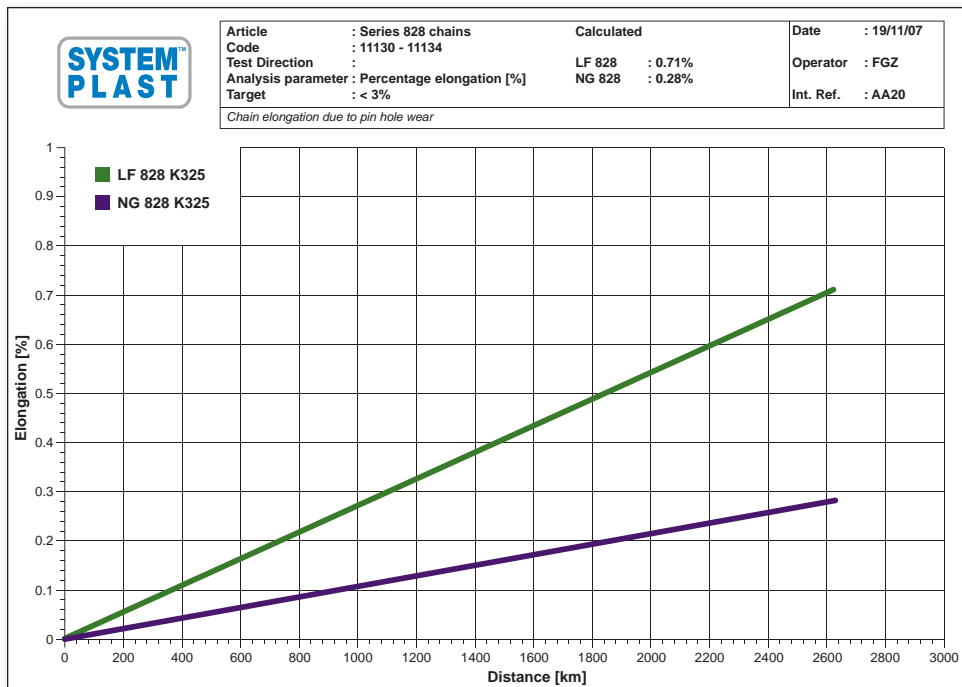
- Extra performance PBT thermoplastic resin designed for dry running applications
- Large, flat surface for product stability
- Side flexing & straight running configurations
- Low coefficient of friction
- Exceptional corrosion resistance
- Reduced PV (pressure/velocity) limit
- Better sliding properties

### **NG™ material chain benefits:**

- Can often eliminate the need for chain lubrication and the resultant problem of waste water handling
- Average service life is +60%
- Lower power consumption
- Extended wear life, even in extreme conditions
- Low noise, reduced squealing
- Increased operating temperature limit to 245°F
- Reduced plate wear and reduced pitch elongation
- Chemical resistance and resistance to UV (aseptic)

# NG™ Reduces Chain Elongation Compared to LF Chains

(Test Example Below)



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**1 800 626 2120**  
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## APPLICATION CONSIDERATIONS

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