

POLYURETHANE HIGH WEAR COATING

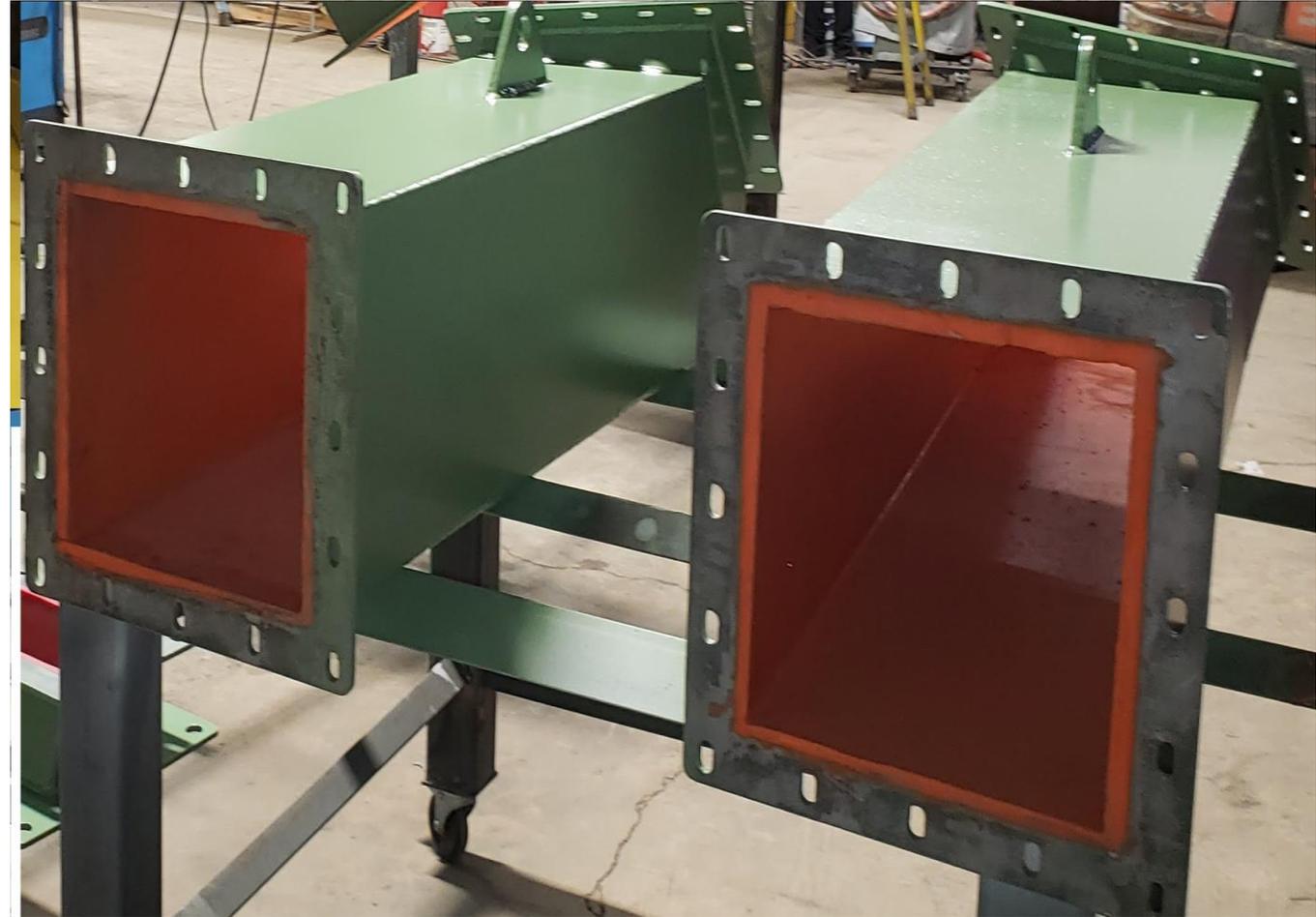
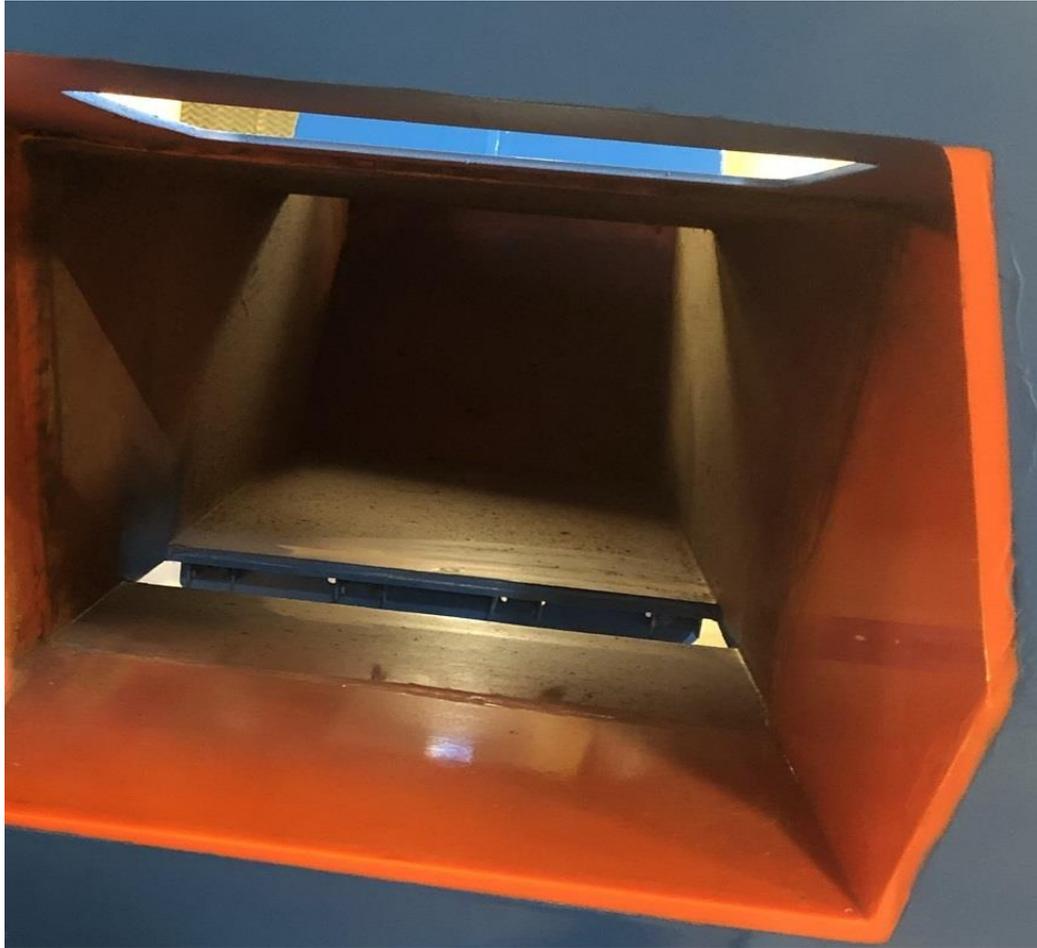
BY

NEMX
SKILLED TRADES

The following slides show some of the applications the liner is currently in service as well as the benefits and cost savings potential when using our liner

HIGH WEAR POLYURETHANE COATING APPLICATIONS

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PRODUCT TRANSFER CHUTES

HIGH WEAR POLYURETHANE COATING APPLICATIONS

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DUCT WORK

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AUGERS AND HOPPERS

HIGH WEAR POLYURETHANE COATING APPLICATIONS

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FANS IMPELLERS, PROPELLERS AND HOUSINGS

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PUMP PROPS AND CASINGS

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PIPE AND PIPE FITTINGS

HIGH WEAR POLYURETHANE COATING APPLICATIONS

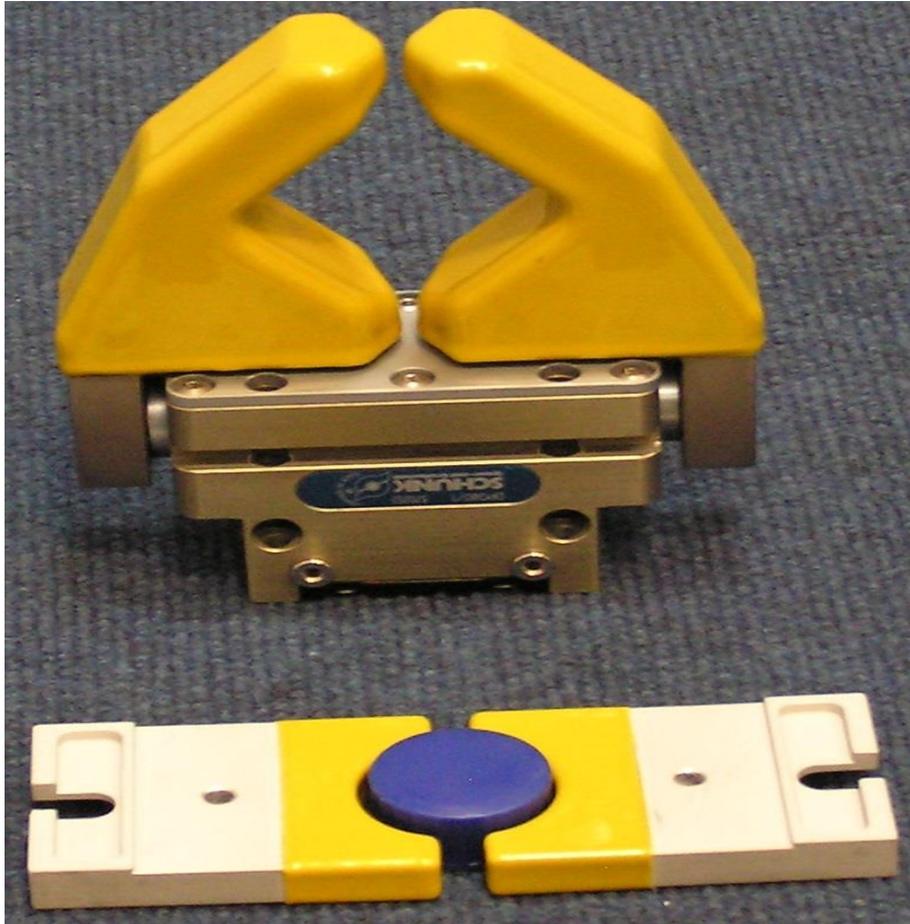
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ON SITE TANK LINING

HIGH WEAR POLYURETHANE COATING APPLICATIONS

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AUTOMATION

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TANK AGITATOR

HIGH WEAR POLYURETHANE COATING APPLICATION METHODS

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Spray



This liner can be spray applied by an SFLP spray machine, cartridge sprayer or be casted similar to that of concrete and finally the liner can be trowel repaired.



This is a versatile, high quality liner

Casting



HIGH WEAR POLYURETHANE LINER

KEY BENEFITS



- Greatly Improved life span on wearable parts
- System Bonds direct to substrate (asset structure)
- Ability to track life span with simple inspections
leading to gained asset life and predictable budgeting



HIGH WEAR POLYURETHANE LINER

BENEFITS



- Seamless flowability: can be sprayed or casted (Similar to concrete)
- Antistatic capabilities
- Corrosion, Oil and chemical resistant
- Application speed
- High Temperature applications available
- Easily refurbished or rebuilt IN PLACE (*cost effective and quick*)
- Flexible thickness thickness ranges from .010” and up
- Reduced vibration and noise
- Elongation of base asset life
- Improved Coefficient of friction on material contact surface Various durometers specific to application requirements

HIGH WEAR POLYURETHANE LINER **WEARABILITY COMPARED TO OTHER** **HIGH WEAR MATERIALS IN** **INDUSTRY**



Using the ASTM-D4060 taber abrasion testing, the NEMX polyurethane liner is proven to:

Last 2.5 times longer than A/R400

Last 3.5 times longer than 44W mild steel

Last 20% longer than Wear max chromium carbide

HIGH WEAR POLYURETHANE LINER EVALUATING THE WEAR DATA



Breaking that information down in a cost evaluation scenario, we measure a wearable asset in cost per day.

IF the A/R 400 asset costs \$1,000 and lasts 100 days, that's \$10 per day

If you add \$1,000 of polyurethane to the above asset for a total purchase of \$2,000 your wearable asset will last **1550 days** and cost **\$1.29 per day**
OR **87% cost savings**

NOW there's some serious savings!

HIGH WEAR POLYURETHANE LINER WEARABILITY CASE STUDY 6326

Installation Date: June 2020

Nemx Scope: Design, fabrication, polyurethane liner installation and site installation

Liner Original Thickness: 0.256"

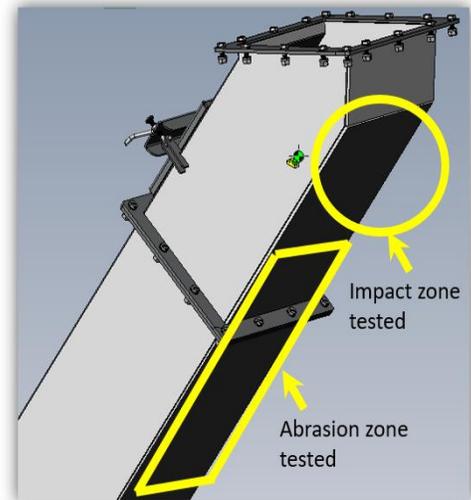
Product: Soya beans, shell on

Operating Temp: Exterior ambient

Approximate Product Flow: 2 million metric tons annually

Type of Wear: Impact 20%, abrasion 80%

Conclusion: Wear rate per year is .004"



HIGH WEAR POLYURETHANE LINER WEARABILITY CASE STUDY 6399

Installation Date: June 2021

Nemx Scope: Design, fabrication, polyurethane liner installation and site installation

Liner Original Thickness: 0.281" 

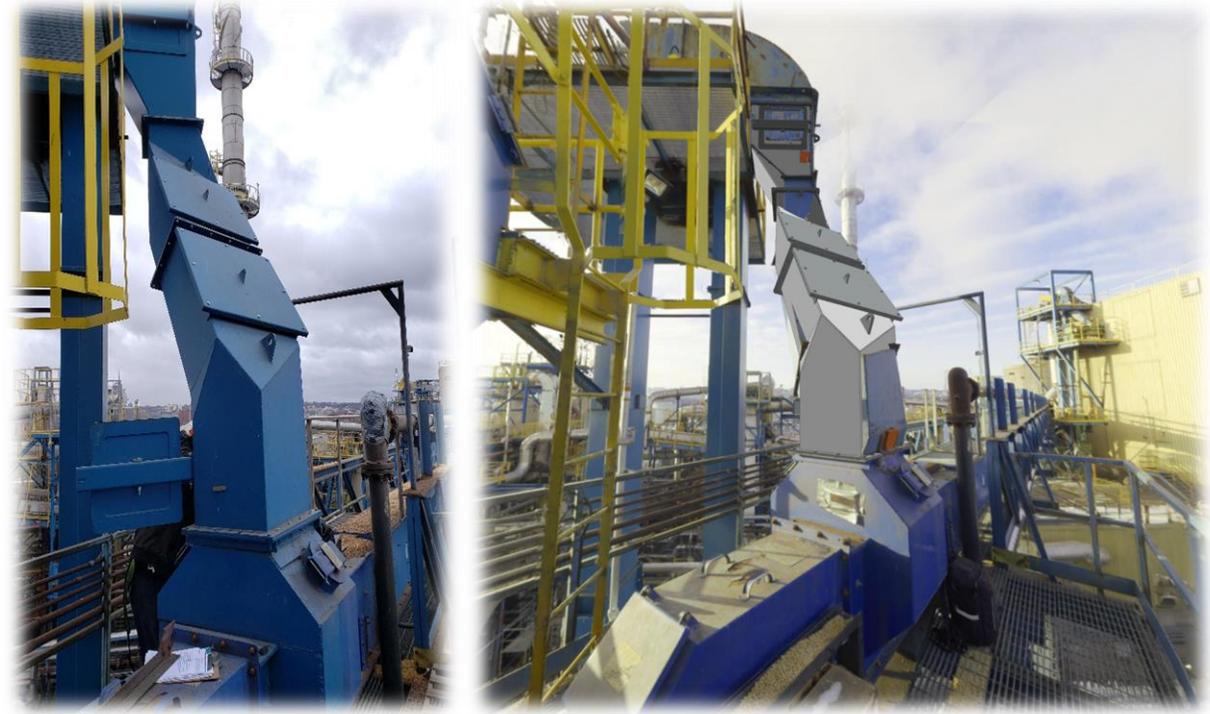
Product: Soya beans, no shell

Operating Temp: Exterior ambient

Approximate Product Flow: 2 million metric tons annually

Type of Wear: Impact 15%, abrasion 85%

Conclusion: Wear rate per year is .004"



HIGH WEAR POLYURETHANE LINER WEARABILITY CASE STUDY DUCT WORK

Installation Date: March 2022

Nemx Scope: Design, fabrication, polyurethane liner installation and site installation

Liner Original Thickness: 0.378"

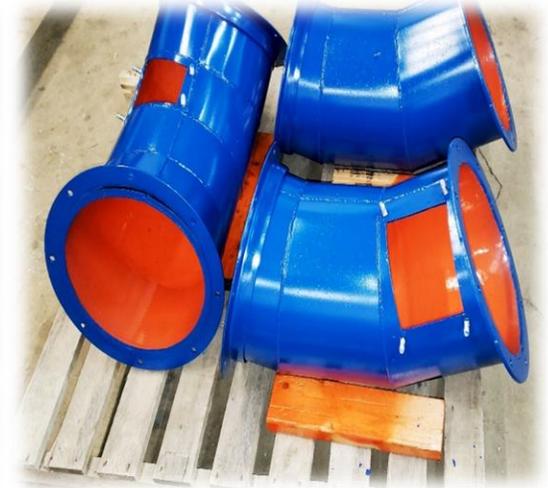
Product: Glass dust, .004"-.010"

Operating Temp: Interior ambient

Approximate Product Flow: 1500KG/HR

Type of Wear: Impact 5%, abrasion 95%

Conclusion: .050" per year



HIGH WEAR POLYURETHANE LINER **FURTHER BENEFITS EXPLAINED**



System Bonds direct to substrate

This is a key feature to this liner system. The polyurethane chemically bonds to the substrate that makes up the asset. This means that there is no hardware or seams, and that there is virtually no chance of product getting in behind the liner forming bubbles that erode the life span of the liner. Furthermore the liner expands and contracts with the substrate creating one perfectly uniform lined asset.

Ability to track life span with simple inspections

The ability to utilize ultrasonic testing equipment on the Polyurethane liner allows Nemx to chart the wear of the liner over time. This allows our clients to predictively cost analyze the replacement of the asset OR decide to repair the polyurethane liner in place giving the client the power to budget accurately.

Liner Easily refurbished

This polyurethane liner can be “rebuilt” in place by applying a repair of the same polyurethane material to the affected area.

HIGH WEAR POLYURETHANE LINER **FURTHER BENEFITS EXPLAINED**



Seamless flowability

The application methods of casting or spraying the polyurethane create a seamless surface. This allows the medium within the lined environment uninterrupted travel through the asset and not allowing for physical seam without the use of any type of fastener for the liner.

Corrosion resistance

The polyurethane is corrosion resistant and will not degrade in wet or submerged applications over time (pending the correct chemical compatibility).

Flexible thickness

The ability to adjust the thickness of this polyurethane liner is second to none. We can apply as little as 30mil up to any desired thickness. Thickness is generally determined by the transferring product and geometry of the asset.

HIGH WEAR POLYURETHANE LINER **FURTHER BENEFITS EXPLAINED**



Antistatic abilities

The antistatic additive transforms the polyurethane to a semiconductor. This allows the ambient environment within the asset to dissipate the electrical charge to ground and NOT remain in the environment that the polyurethane liner is lining. This is a huge benefit to reduce the chance for electrical charge build up in friction type environments.

Elongation of Belt life with quality repairs

When using the polyurethane belt repair system, it allows for seamless repairs of gouges, holes, rips, tears and general surface wear to rubber belting. The belt repair system chemically bonds to the belt and is designed for the range of motion the belt is subjected to. Meaning the belt repair system is chemically formulated to bend to the radius of pulleys, guides and impact once cured.

**NOT designed for belt splicing

HIGH WEAR POLYURETHANE LINER **FURTHER BENEFITS EXPLAINED**



Improved Coefficient of friction

The polyurethane low coefficient of friction allows improved flow over most other substrates. This means that there will be less or near no hang-ups and transferred product wear.

Application speed

The application speed of both the spray and casting application methods is astounding in consideration to the product quality. Budget is not wasted on installation manpower with this liner.

Reduced vibration and noise

Polyurethane is a natural insulator. By applying polyurethane, the vibration and sound of the product transfer device is significantly reduced.

WHY CHOOSE NEMX HIGH WEAR



EXPERTISE

- Nemx is a turn key service contractor serving the industrial and commercial sectors.
- We have resources and experience to not only suggest the best solutions for your application, we can also evaluate your entire system from start to finish and provide recommendations to solve or improve the system.
- Nemx has 3D scan, engineering and design capabilities. We couple that with a fully equipped fabrication shop, compliant paint operations and polyurethane application systems bringing the expertise of many to one phone call.
- On the mobile site operation side we offer mobile welding, painting, polyurethane applications and of course mobile mechanical Millwrights to service our clients.

The package speaks for it self, Nemx is your one stop solution spot!

THANK YOU!

Thank you for your time and interest in our liner. We are grateful for the opportunity to speak with you about it.

Should you require further information or quotation please contact:

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