



## **Customer Success Spotlight: Rail E-Clips Enhanced with Greenkote® Coating!**

Greenkote is excited to share a comprehensive case study developed by our valued customer, NARSTCO, demonstrating how Greenkote's advanced coating technology was applied to e-Clip components for improved corrosion resistance and performance.

This study highlights:

- The engineering challenges faced with demanding applications
- How Greenkote® coatings delivered measurable improvements in longevity and reliability
- Real-world test results and customer feedback

Contact your Greenkote representative for full details.

Special thanks to NARSTCO for their trust in Greenkote solutions.  
See the NARSTCO datasheet on the following page

# Innovating Rail Solutions & Advanced, Green Anticorrosion Technology

All NARSTCO Products are Made in America from 100% Recycled US Steel.



**SCAN HERE TO LEARN MORE**



## About NARSTCO

The NARSTCO line of Rail Clips are manufactured in the USA from high-quality American recycled steel. The Ne1 design replaces the need for spikes and rail anchors while applying a high clamping force, resisting rail rollover, and providing excellent longitudinal restraint.

## Why Greenkote?

GREENKOTE® is a patented zinc thermal diffusion technology that provides rail clip and related components with exceptional corrosion protection, superior surface hardness, damage tolerance, longer wear and better overall performance. Greenkote is covered by ASTM A1059 and ISO 17668 specifications. In addition, the coating process is eco-friendly.

### Benefits

- ✓ Unexcelled corrosion resistance
- ✓ Superior hardness for long-lasting wear
- ✓ Metallurgical bonding & adhesion
- ✓ Thin, durable, & chip resistant
- ✓ Eco-friendly

## Increased Corrosion Protection

### Greenkote PM-1 at 40+µm + GK-996 Transparent Sealer

Greenkote PM-1 is a proprietary zinc-aluminum thermal diffusion coating that conformally coats complex shapes, such as rail hardware, in thickness up to 100µm – and easily adjustable. The alloy is designed for service in harsh environments such as marine, alkaline, and industrial settings and imparts excellent corrosion protection to the components. The coating provides excellent friction/torque/tension performance in fasteners and connections. The surface hardness of the Greenkote is HV 400-420, providing some degree of wear resistance as well as damage/chipping resistance during installation and service. The coating layer can resist modest amounts or crimping or bending and offers low friction characteristics to minimize seizing and galling. Greenkote can be applied to most any iron base material in cast, wrought, or forged condition; it can even be applied to cast iron and powder metal components.

For rail components Greenkote PM-1 is typically applied at 40+µm followed by a layer of Greenkote GK-996 transparent sealer to further protect the parts from corrosion.