

## E-COAT PERFORMANCE

Oshkosh Finishing Services features one of the largest electrocoating (E-Coat) facilities in the nation. The Oshkosh E-Coat immersion process provides coverage of complex parts and a uniform thickness without runs or drips. E-Coat delivers a superior corrosion and chemical resistance, while maintaining a high-quality, resilient surface for paint of any color or finish.



# E-COAT PERFORMANCE | HIGH-QUALITY CORROSION RESISTANCE

Oshkosh offers cathodic epoxy coatings paired with a zinc-phosphate pre-treatment. This process has proven to deliver the ultimate corrosion protection with the highest level of chemical resistance.

The durability of E-Coat is tested by using a continuous salt spray fog. The American Society of Testing and Materials (ASTM) requires these coatings to reach 1000 hours of continuous salt spray without failure, which simulates 10 years of service in a corrosive environment. Included in this testing is the scribing of the panel down to bare metal. The scribe line can be seen down the center of each panel in the photos below. This is to induce the corrosion and to be able to measure propagation of the corrosion underneath the finishing layers. Below is a representation of both E-Coat, as well as other methods before and after undergoing the salt spray testing. The results show E-Coat not only surpasses the other methods, but also achieves 1600 hours of salt spray versus the required 1000 hours.

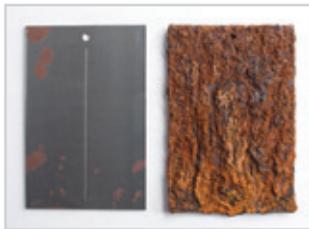


Pierce® Dash® CF Pumper

*"E-coat offers a superior corrosion and chemical resistance when compared to conventional priming and painting methods. We chose to E-Coat our frame rails and liners because of its proven corrosion protection, its durability and versatility."*

*Jim Johnson  
President  
Pierce Manufacturing*

**Cold Rolled Steel**  
BEFORE & AFTER



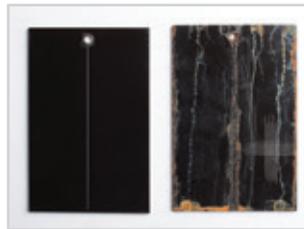
The panel after testing shows a steel substrate with severe corrosion.

**Galvanized Steel**  
BEFORE & AFTER



Corrosion has not only spread near the scribe line, but over the entire galvanized panel.

**E-Coated Cold Rolled Steel**  
BEFORE & AFTER



Corrosion begins locally at the scribe line, while the E-Coat remains adhered to the metal.

**Direct to Metal Powder Coat**  
BEFORE & AFTER



The panel after testing exhibits significant paint peeling at the scribe line and corrosion around the edges.

**Powder Coat over Galvanizing**  
BEFORE & AFTER



Similar to direct to metal powder coat example, significant amounts of paint is peeling off of the galvanized panel after testing.

**Powder Coat over E-Coat**  
BEFORE & AFTER



Localized corrosion at the scribe line, while the powder coating remains adhered to the E-Coated panel.



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CORROSION PROTECTION  
TOP COAT  
WELDING AND FABRICATION  
ASSEMBLY