

Fluoramics' HinderRUST Prevents Corrosion on Aluminum and Protects Metal From Oxidation

Fluoramics' HinderRUST offers superior corrosion protection for aluminum, shielding it from moisture and oxygen to extend metal life in tough environments.

LEWISTON, MN, UNITED STATES, October 22, 2024 /EINPresswire.com/ -- Aluminum is widely used in construction, manufacturing, and daily applications but it is not immune to corrosion. Like most metals, aluminum naturally oxidizes, forming a protective aluminum oxide layer. Under certain conditions, this protective layer breaks down, leaving the metal vulnerable to corrosion. [Fluoramics](#), a leader in anti-corrosion technology, is shedding light on how aluminum corrodes, why it reacts differently from other metals, and how to effectively prevent damage with the right solutions, such as [HinderRUST](#).

While rust and corrosion are often confused, they are not the same. Corrosion refers to the oxidation of any metal, while rust is a specific form of corrosion that affects only iron and steel. Rust occurs when moisture accelerates the oxidation of iron, leading to a flaking, repeating cycle of damage. Aluminum oxidizes to form a hard, whitish surface that protects the underlying metal. However, when this protective layer is



Aluminum not treated with HinderRUST vs treated with HinderRUST



Four Core HinderRUST Products

compromised, corrosion can occur, especially in environments with chlorides, sulfides, or galvanic corrosion risks.

Aluminum's tendency to oxidize quicker than steel can be a double-edged sword. On the one hand, the oxide layer protects the metal. On the

other, exposure to chloride-rich environments, such as saltwater, leads to the breakdown of this layer, causing localized corrosion. Additionally, when aluminum comes into contact with dissimilar metals in the presence of moisture, galvanic corrosion occurs. This is commonly seen in marine environments where aluminum is paired with brass fittings.

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HinderRUST protects aluminum from corrosion by blocking moisture and oxygen, ensuring longer-lasting performance, even in the harshest environments.”

Gregg Reick, Fluoramics' President and Chief Chemical Engineer

HinderRUST, formulated with Fluoramics' [Tufoil Technology](#), is a powerful coating that prevents corrosion by forming a barrier between metal, moisture, and oxygen. Without these reaching the metal surface, oxidation cannot occur. Unlike solvent-based products that evaporate quickly, HinderRUST stays on the surface, offering long-lasting protection. In a recent B117 salt-fog test, HinderRUST-treated aluminum demonstrated significantly improved resistance to corrosion compared to untreated metal, especially in applications such as air conditioning cooling coils and other HVAC systems.

In addition to applying protective coatings like HinderRUST, there are other strategies for preventing aluminum corrosion:

- Use Powder Coating or Paint: These coatings form a barrier between the metal and corrosive elements.
- Anodizing: An advanced surface oxidation process that strengthens the protective oxide layer while offering aesthetic finishes.
- Choose the Right Aluminum Grade: Certain grades, such as 5052 and 3003, are more resistant to corrosion.
- Prevent Galvanic Corrosion: Use electrically insulating coatings and keep aluminum dry to minimize galvanic effects between dissimilar metals.

By understanding the differences between rust and corrosion and taking proactive steps, businesses and consumers can extend the life of their aluminum equipment and structures. Fluoramics' HinderRUST is the ideal solution to safeguard metals in various industries, from construction to HVAC systems. Trust Fluoramics to keep your aluminum corrosion-free and in peak condition for years to come.

HinderRUST®
Keeps the World Moving!

"HinderRUST truly keeps the world moving!" — Gregg Reick, President and Chief Engineer of Fluoramics

For more information on HinderRUST or other Fluoramics products, visit [Fluoramics.com](https://fluoramics.com) or contact us at information@fluoramics.com.

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