



Aircraft corrosion protection - The importance of corrosion protection in the aircraft and aviation industry

Aircraft corrosion protection is crucial for several reasons, encompassing safety, economic efficiency, and regulatory compliance. Here are the key aspects highlighting its importance:

Safety:

Structural Integrity - Corrosion can weaken the structural components of an aircraft, leading to potential failures. This compromises the safety of the aircraft, posing risks to both passengers and crew.

Component Reliability - Corrosion can affect critical components such as landing gear, control surfaces, and engines, potentially leading to malfunctions or failures during flight.

Economic Efficiency:

Maintenance Costs - Regular and effective corrosion protection reduces the frequency and severity of repairs needed. This minimizes downtime and maintenance costs. **Longevity of Aircraft** - Proper corrosion protection extends the service life of an aircraft, delaying the need for costly replacements.

Performance:

Fuel Efficiency - Corrosion can increase the drag on an aircraft by affecting its aerodynamic surfaces, leading to higher fuel consumption. **Weight Management** - Corroded components might need to be reinforced or replaced with heavier parts, impacting the aircraft's weight and balance.

Regulatory Compliance

Adherence to Standards - Aviation authorities such as the FAA (Federal Aviation Administration) and EASA (European Union Aviation Safety Agency) have strict regulations regarding aircraft maintenance and airworthiness, including corrosion control measures. **Inspection Requirements** - Regular inspections

mandated by regulatory bodies often focus on detecting and addressing corrosion, ensuring that aircraft meet the necessary safety standards.

Environmental Considerations

Material Conservation - Effective corrosion protection reduces the need for frequent replacement of parts, conserving materials and reducing waste. **Chemical Use** - Proper corrosion management minimizes the use of harsh chemicals required for treating advanced stages of corrosion, benefiting environmental sustainability.

Operational Readiness

Reliability - Corrosion protection ensures that aircraft remain in optimal condition, ready for operation without unexpected delays due to maintenance issues. **Fleet Management** - For airlines, maintaining a corrosion-free fleet ensures better scheduling and utilization of aircraft, enhancing overall operational efficiency.

Corrosion Protection Solutions for Aircraft

Protective coatings and paints act as barriers between the aircraft's metal surfaces and the environment. One such coating is **SuperCORR A** advanced lubricant and corrosion inhibiting compound, based on approved synthetic materials, to provide quality solutions to a diverse range of lubrication and corrosion problems. A unique and proprietary formulation with long-lasting, anti-corrosion inhibitors providing a superior lubrication coefficient and protection against moisture, wear, general and fretting corrosion, static electricity, corona, and other electro migration problems.

Conclusion

The importance of aircraft corrosion protection cannot be overstated. It is a fundamental aspect of aircraft maintenance that ensures safety, economic viability, regulatory compliance, and environmental sustainability. Effective corrosion control measures are integral to maintaining the integrity and performance of aircraft, ultimately supporting the reliability and efficiency of the aviation industry.



SuperCORR A specialist barrier film corrosion protection for aircraft

EnviroTech Europe supplies advanced corrosion protection products, based on approved synthetic materials, to provide quality solutions to a diverse range of lubrication and corrosion problems.

SuperCORR A is a unique and proprietary formulation with long-lasting, anti-corrosion inhibitors providing a superior lubrication coefficient and protection against moisture, wear, general and fretting corrosion, static electricity, corona, and other electro migration problems. The non-flammable film is only 7 microns (0.007mm) in thickness, is not a wax or oil-based product and is formulated without sulphates, chlorides, petroleum-based material, or halogens, to meet the EU RoHS directive.

The use of **SuperCORR A** for corrosion control can not only bring financial savings in reduced maintenance and replacement costs but more importantly greater safety. It is much simpler and a lot

less costly to prevent corrosion than to repair or replace damaged aircraft equipment or a component that failed because of corrosion.

SuperCORR A is a non-flammable “self-healing” ultra-thin film lubricant with a proprietary corrosion preventive compound that will not harden or crack, is not a wax or oil-based product and is formulated without sulphates, chlorides or halogens.

SuperCORR A is packaged in aerosol cans making application to component parts easy for engineering crews in difficult locations and conditions. Unpainted mild steel will not rust on exterior surfaces directly exposed to sea water environments for at least 6 months, protecting electrical connectors, switches, chains, drive shafts from corrosion while maintaining lubrication on moving surfaces.

EFFICIENT AND ECONOMICAL

- Extremely long-lasting, specially formulated and proprietary anti-corrosive inhibitor.
- Eliminates premature failure of components created by moisture, general or fretting corrosion.
- Prevents deterioration and contamination on all surfaces of electronic and electrical equipment and mechanical close tolerance moving components.
- Reliability increased, maintenance intervals increased, costs reduced, manufacturers save costly warranty service calls or product re-call.

HISTORY

SuperCORR A was originally developed for the U.S. Air Force to comply with military specifications and to prevent electrical and electronic components from systems failures caused by corrosion. It became the industry standard for avionic corrosion protection within MROs (maintenance, repair and operations) and OEMs (overhaul and original equipment manufacturers). It’s unique ability to displace water and provide a performance enhancing level of corrosion protection has led to it being used in many other applications and industries worldwide.

FURTHER INFORMATION

Please visit our website <https://www.envirotech-europe.com/supercorr-a> for information about other uses and applications for **SuperCORR A**.

For more advice, please telephone us on +44 (0) 20 8281 6370 or use our website contact form. Manufactured in the United Kingdom and available on short delivery times through our dedicated team of distributors worldwide.

Supplied and supported by



EnviroTech Europe Ltd, Steward House, 14 Commercial Way, Woking, Surrey GU21 6ET, United Kingdom
Tel +44 (0) 20 8281 6370 | www.envirotech-europe.com | contact@envirotech-europe.com
Company registered in England and Wales No. 4170693

