

# AEROSPACE & DEFENCE

Coating

Deicing

Microchips

Fuel additives



## Coating



Aerospace paints and coatings used in construction and maintenance must be extremely tough and durable, given the conditions in which they operate such as extreme temperatures or a high level of ultraviolet (UV) exposure over their lifetime. Coatings must also be resistant to the chemicals found in jet

fuel, or other substances that aircraft frequently come into contact with. Coatings with a blend of solvents are used to achieve optimum solvency and regulate the drying time (for instance n-butyl acetate-based). The coating protects the plane from corrosion to ensure safety and make it last longer.

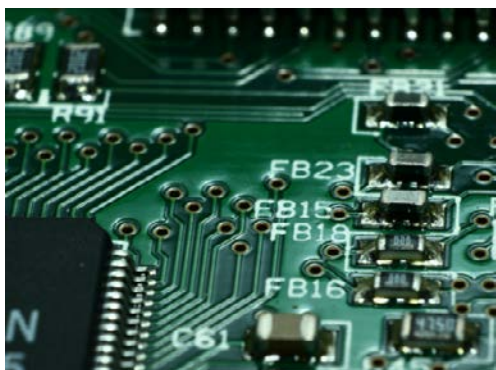
## Deicing



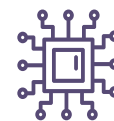
If temperatures are below zero, the plane might need to be de-iced before taking off. Alcohols or glycol-based de-icers are ideal for the removal of snow,

ice and frost from the wings and frame of the aircraft. They also stick to the surface to postpone the reformation of ice for a limited period.





## Microchips



Micro-electronic elements are used in the technologies to navigate modern planes. Electronic-grade solvents (alcohols, esters and ketones) with very low levels of metal ions in the solvents are also used to produce microchips. Metal ions can cause short circuits

that result in poor-quality microchips. Electronic-grade solvents are used to dissolve a photo-sensitive polymer that is then spun on a silicon wafer to produce the micro-circuit. Solvents are also required to clean the surface of wafers and circuits.

## Fuel additives

Solvent-based additives (alcohols, ketones or lighter but aromatic hydrocarbon solvents) lower the flash

points and enable the fuel to ignite faster and burn longer.



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