



Black Zinc Nickel

Context

Cadmium plating is widely used in the aerospace and defence sector as an anti-corrosion surface finish. Cadmium plating has many benefits:

- Very good corrosion resistance
- Good electrical conductivity
- Low cost

However, the use of cadmium is reducing because of its toxicity to humans and the environment. Currently, the use of cadmium is restricted by the RoHS directive (Restriction of Hazardous Substances), but an exemption allows its use for plating until a suitable alternative is available.

There is therefore a need to find an alternative.

To this end, Axon' is now able to offer ***black zinc nickel plating***.

Black zinc nickel facts

- RoHS compliant
- Chromium (VI)-free passivation
- 500-hour salt spray resistance
- Black in colour with a slight iridescence
- Contact resistance: 28 mΩ (40 mΩ after 500-hour salt spray)



Compliant with the RoHS directive and cadmium and chromium-free, black zinc nickel offers a corrosion resistance equivalent to cadmium plating, and a slightly higher contact resistance (28 mΩ against 5 mΩ for cadmium).

Its colour (black) is an important asset for defence applications.