

# AnoBlack Ni

## Precision black coating for a variety of substrates

**AnoBlack Ni** is Anoplate's proprietary industrial, black nickel deposit, meeting requirements of MIL-P-18317. **AnoBlack Ni** deposits a gray-to-black thin coating which is useful to reduce glare, or absorb light in the IR or UV spectrum.

Unlike other black coatings which can particulate and disturb sensitive optical instruments even after precision cleaning, **AnoBlack Ni** has been proven to pass precision cleaning protocols.

Because the **AnoBlack Ni** coating is so thin, it cannot be relied up for any corrosion protection. When improved corrosion performance is required, a nickel underplate can be applied which meets the requirements of AMS-QQ-N-290 or AMS 2404.

**AnoBlack Ni** provides a highly conductive surface and has excellent "throw" or ability to plate uniformly on complex geometries. An underplate of electroless nickel can further enhance the lubricity of the overall deposit. Black nickel can be used where high emissivity is required such as optics, solar panel applications, aerospace and defense weapons systems.

**AnoBlack Ni** is very thin as-deposited, however for corrosion protection it is typically deposited over an underplate of electro-deposited or electroless nickel. For post-plating fit, the tolerances on the nickel underplate will have to be taken into consideration.



## TYPICAL APPLICATIONS

**AnoBlack Ni** could be applied where maximum wear life and corrosion resistance are required. **AnoBlack Ni** is an excellent solution for the following applications:

- ❖ Optical light paths
- ❖ Precision-cleaned optical components
- ❖ Communication headsets

## COMPATIBLE MATERIALS

- ❖ Steel
- ❖ Stainless Steel
- ❖ Inconel, Monel, Invar, Covar
- ❖ Aluminum
- ❖ Brass & Copper

## PHYSICAL PROPERTIES

Maximum Temperature	<b>350° F</b>
Visual	<b>Shiny, smooth, gray to black</b>
Clean ability	<b>Excellent</b>
Solar absorbency	<b>0.5-2.5 <math>\mu</math>m range from 0.88 to 0.96</b>
Infrared emittance	<b>0.5-2.5 <math>\mu</math>m range from 0.07-0.10</b>

\*The smoother the base material, the blacker the AnoBlack Ni deposit