

NOVAMET

HCA-1 Conductive Nickel Flake

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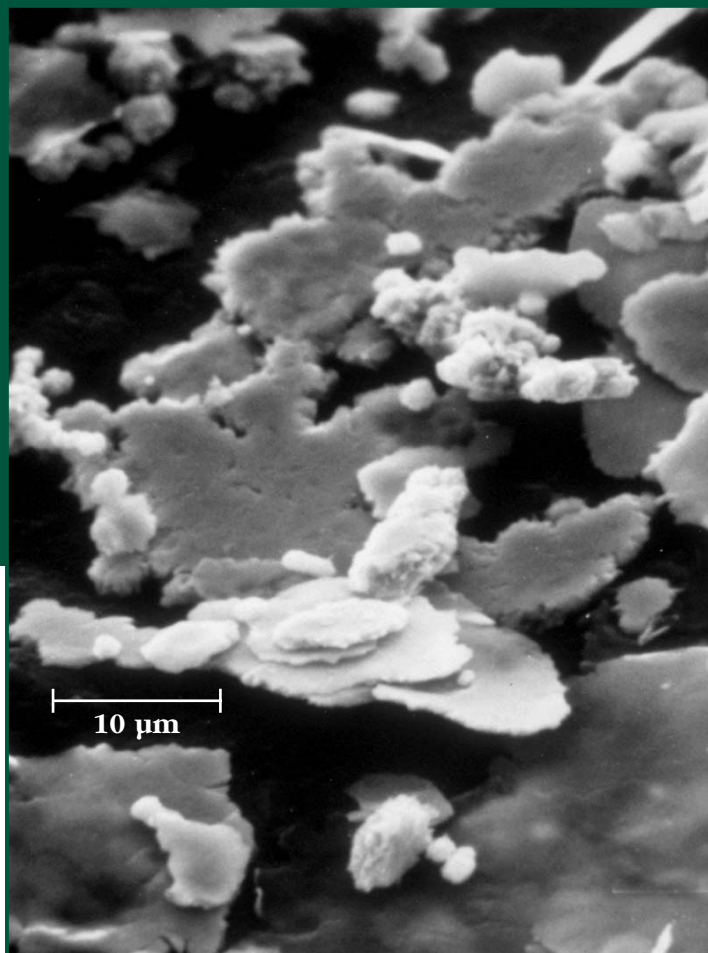
HCA-1 is a nickel flake that has an irregular, platelet shape with an aspect ratio approaching 20 to 1. The thickness of the flake is about 1 micron. HCA-1 is heat treated in a controlled atmosphere to remove surface oxidation for enhanced conductivity.

Applications

HCA-1 is an excellent choice for solvent and waterborne paint formulations using acrylic, urethane, epoxy and vinyl polymer systems. HCA-1 is widely used in EMI/RFI shielding coatings for electronic components. Other applications include conductive inks, adhesives and anti-static floor coatings.

The Advantages of Nickel

- **Particle Shape:** High purity nickel powder is flaked in a ball mill to a thickness of about 1 micron. This produces a high surface area flake that results in many point-to-point contacts and maximizes electrical conductivity.
- **Chemical Properties:** Nickel is extremely resistant to oxidation and corrosion. It has advantages over other metals that form surface oxides over time which results in reduced conductivity.
- **Enhanced Conductivity:** The surface of HCA-1 is heat treated in a controlled atmosphere which has been proven to improve conductivity.
- **Metallic Appearance:** Coatings made with HCA-1 are smooth with a gray metallic look.
- **Waterborne Coatings:** Unlike competitive materials, HCA-1 is stable in water based coatings.
- **Nickel is magnetic.**



Typical Properties of HCA-1 Nickel Flake

Screen Analysis (%)

	+250	-400
HCA-1	trace	98%

Apparent Density	1.1 g/cm ³
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Packaging

Size	Weight
1 gal / 4 liter can	11 lb / 5 kg
5 gal / 20 liter pail	55 lb / 25 kg
15 gal / 60 liter drum	220 lb / 100 kg

Note: All containers are lined with a polyurethane bag.

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