

NOVAMET

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Nickel Flake

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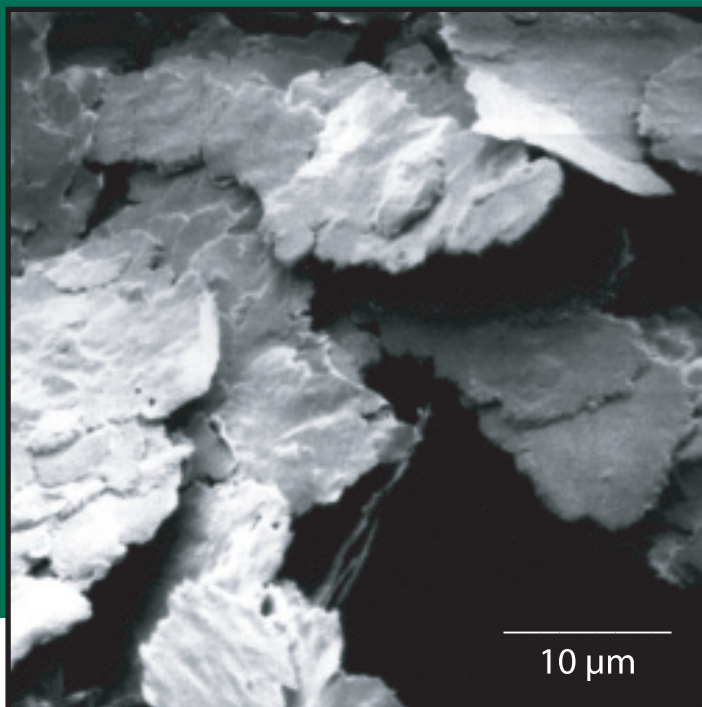
Novamet Nickel Flakes are bright, attractive particles ideally suited for applications such as decorative pigments in high performance paints and powder coatings. Nickel Flakes are available in leafing (L) and water (W) grade versions. Nickel's pewter-like appearance and rich luster are unique among metallic pigments. Both the leafing and water grades can be used in solvent based paint systems. Leafing pigments tend to concentrate near the surface of a paint film creating a metallic appearance. Water grade pigments are non-leafing in solvent systems and randomly disperse throughout the paint film.

Applications

- Water-borne coatings. Nickel is inert in water-based paints and, unlike aluminum and other pigments, will not form hydrogen gas. This eliminates problems with popping of can lids.
- Powder Coatings. Architectural coatings requiring long-term stability. Automotive trim, wheels and under-the-hood parts, office and outdoor furniture, bicycles.
- Cookware Coatings. In PTFE (Teflon) nickel flake provides a metallic appearance while promoting heat transfer and abrasion resistance.
- High temperature anti-seize lubricants. A special grade, Type CHT, is available for extremely high temperature and corrosive environments such as oil well drilling.
- Printing Inks. An extra fine pigment grade provides a magnetic signature in security inks.
- Hard Metal Binder. The leafing grades are used as additives to Tungsten Carbides (WC). The platelet shape and thin stearic acid coating on the flake promotes encapsulation of the WC powder and, in turn, a uniform dispersion of the nickel binder throughout the matrix.

The Advantages of Nickel

- Corrosion resistance. Exposure in 100% relative humidity and 5% salt spray, 35 C for 2000 hours shows no change in appearance.



- Wide Product Range. Six types of nickel flakes are available in a range of diameters and thickness. Flakes can be further sized to customer specifications.
- Nickel is magnetic. By use of a magnetic background field, designs such as starbursts can be formed while spraying nickel containing coatings.
- Lower Explosive Limits. Tests conducted by an independent laboratory show nickel to be stable in powder coatings. The U.S. Bureau of Mines categorizes explosion hazards of materials as None, Weak, Moderate, Strong and Severe. Nickel falls into the "none" category.

Typical Properties of Novamet Nickel Flake

	Screen Analysis (Mesh)	Apparent Density (g/cm ³)	Flake Thickness (microns)
Fine Leafing	95% -325	0.6	0.5
Pigment Grade	95% -325	0.5	0.3
Standard Leafing Paste	75% -325	0.8	1.0
Fine Water Grade	95% -325	0.6	0.5
Standard Water Grade	75% -325	0.4	0.7
CHT	99% -325	2.0	1.5

Packaging

U.S.		Metric	
1 gal. can	11 lb	4 liter can	5 kg
5 gal. pail	55 lb	20 liter pail	25 kg
15 gal	220 lb	60 liter drum	100 kg

Note: Plastic pails lined with a polyurethane bag.

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NOVAMET Specialty Metal Flakes, Powders, Pigments, Oxides and Coated Products