

NOVAMET

Conductive Nickel Spheres (CNS)



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Conductive Nickel Spheres (CNS) is a family of high purity, smooth, spherical nickel powders produced by the thermal decomposition of nickel carbonyl and advanced air classification technology. They are available in a range of tightly sized fractions from 1 to 30 microns.

Applications

The narrow particle size distribution makes CNS an excellent filler in conductive adhesives and inks where high packing density and conductive properties are critical. Up to 30% of CNS can be blended with pure silver particles without a significant loss of conductivity. CNS can be plated with silver or gold to enhance conductivity.

Advantages of Conductive Nickel Spheres

CNS particles are available in uniform distributions within a range of 1 to 30 microns.

- CNS is magnetic. Particles can be aligned magnetically to form circuit paths.
- CNS has a low surface area and is agglomerate-free for maximum packing density.
- Nickel is oxidation resistant.
- Custom size distributions are available.

Typical Properties of CNS Nickel Powder

Chemical Properties

Nickel	Oxygen	Carbon	Iron	Sulfur
99.9%	500 ppm	500 ppm	<20 ppm	<2 ppm

Size Distribution (Microtrac) microns

Type	d10	d50	d90
CNS-250+10	8	15	35
CNS-250+20	12	27	54
CNS-400	5	10	25
CNS-20+10	6	10	16
CNS-20	4	8	16
CNS-10	4	6	10
CNS-5	1	2	5

Packaging

Size	Weight
1 gal/4 liter can	11 lb/5 kg
5 gal/20 liter pail	55 lb/25 kg

Note: All containers lined with a polyurethane bag.

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