Novamet Specialty Products Corporation

Typical Product Properties

Nickel Flakes

	Screen Analysis (Mesh)	Apparent Density (g/cm3)	Flake Thickness (Microns)	Major Applications
HCA-1	98% (-400)	1.1	1.0	EMI/RFI Shielding Coatings/Aerosols
Fine Leafing	95% (-325)	0.6	0.5	Powder Coatings, Hard Metal Binders
Fine Leafing Pigment Grade	95% (-325)	0.5	0.3	Printing Inks
Standard Leafing Paste	75% (-325)	0.8	0.6	Decorative Coatings, Cookware Coatings
Fine Water	95% (-325)	0.6	0.5	Waterborne Coatings
Standard Water	75% (-325)	0.4	0.7	Waterborne Coatings
CHT	99% (-325)	2.0	1.5	Anti-seize Lubricants
97Ni/3Al Leafing	50% (-325)	0.2	0.5	Magnetic Coatings
81Ni/2Mo Permalloy	80% (-325)	0.5	0.5	Magnetic Coatings

Stainless Steel Flakes

	Screen Analysis (Mesh)	Apparent Density (g/cm3)	Flake Thickness (Microns)	Major Applications
Fine Leafing	95% (-325)	0.7	0.6	Powder Coatings, Aerosols
Standard Leafing	80% (+325)	0.7	0.8	Architectural Coatings, Powder Coatings
Fine Water	95% (-325)	0.5	0.5	Waterborne Coatings
Standard Water	80% (+325)	0.5	0.8	Waterborne Coatings
SSC Paste	90% (-325)	0.4	0.4	Food Processing Plant Coatings/Aerosols

Zinc Flakes

	Screen Analysis (Mesh)	Apparent Density (g/cm3)	Flake Thickness (Microns)	Major Applications
Fine Leafing	90% (-325)	1.7	1.0	Powder Coatings, Aerosols
Fine Leafing -325	99% (-325)	1.7	1.0	Powder Coatings, Aerosols

Conductive Nickel Powders

	Screen Analysis (Mesh)	Apparent Density (g/cm3)	Microtrac (d50/Microns)	Major Applications
CNS	100% (-400)	3.3	10 to 14	Conductive Fillers
CNS -10	100% (-400)	3.4	6 to 8	Conductive Fillers
CNS -20	100% (-400)	3.5	7 to 10	Conductive Fillers
525 Pigment	100% (-325)	1.1	12 to 14	EMI/RFI Shielding Coatings/Aerosols
525 Pigment LD	100% (-250)	0.7	14 to 16	EMI/RFI Shielding Coatings/Aerosols

Spherical Nickel Powders

	Screen Analysis (Mesh)	Apparent Density (g/cm3)	Microtrac (d50/Microns)	Major Applications
4SP	100% (-400)	3.3	10 to 14	PM Parts, Metal Injection Molding
4SP -10	100% (-400)	3.4	6 to 8	PM Parts, Metal Injection Molding
4SP -20	100% (-400)	3.5	7 to 10	PM Parts, Metal Injection Molding

Nickel Coated Graphite Powders

	Screen Analysis (Mesh)	Apparent Density (g/cm3)	Microtrac (d50/Microns)	Major Applications
60% Ni Coated Graphite	95% (-100+250)	1.4 to 1.5	90	Conductive Elastomers/Sealants
75% Ni Coated Graphite	90% (-200+325)	1.7 to 1.9	55	Conductive Elastomers/Sealants

Silver Coated Powders

	Screen Analysis (Mesh)	Apparent Density (g/cm3)	Microtrac (d50/Microns)	Major Applications
15% Ag Coated Ni	85% (-325)	2.7	30 to 40	Conductive Fillers
15% Ag Coated Ni Coarse Grade	90% (-325)	3.4	35 to 45	Conductive Fillers

Nickel Oxides

	Percent Nickel	Screen Analysis (Mesh)	Microtrac (d50/Microns)	Major Applications
Green Nickel Oxide	78.5	99% (-325)	12 to 22	Thermistors, Varistors, Ferrites
Green Nickel Oxide - Type A	78.5	100% (-400)	6 to 10	Thermistors, Varistors, Ferrites
Green Nickel Oxide - Type F	78.5	100% (-400)	0.5 to 1.5	Thermistors, Varistors, Ferrites Fuel Cell Electrodes
Refractory Grade Nickel Oxide	75	100% (-400)	2 to 3	Inorganic Color Pigments

Inco Nickel Powders

	Particle Size (FSSS/Microns)	Aparent Density (g/cm3)	Microtrac (d50/Microns)	Major Applications
Type 110	1 to 2	1.0 to 2.0	1 to 2	PM Parts
Type 123	3 to 7	1.8 to 2.7	8 to 10	PM Parts
Type HDNP	8 to 15	3.0 to 4.0	13 to 18	Master Alloys
Type 210	0.5 to 1.0	0.3 to 0.5	N/A	Electrodes for Batteries & Fuel Cells
Type 210H	0.2 to 0.5	0.3 to 0.6	N/A	Electrodes for Batteries & Fuel Cells
Type 240	2.2 to 2.8	0.35 to 0.5	14 to 21	Electrodes for Batteries & Fuel Cells
Type 255	2.2 to 2.8	0.5 to 0.65	14 to 21	Electrodes for Batteries & Fuel Cells
Type 287	2.6 to 3.3	0.75 to 0.95	14 to 21	Electrodes for Batteries & Fuel Cells
Black Nickel Oxide "A Grade"	N/A	1.3	6 to 10	Catalysts, Ferrites, Inorganic Color Pigments
Black Nickel Oxide "F Grade"	N/A	0.7	1 to 2	Catalysts, Ferrites, Inorganic Color Pigments

Inco Nickel Foam

	Thickness (mm)	Density (g/m2)	Cell Size (um)	Major Applications
INCOFOAM™	1.7 to 2.3	320 to 1450	450 to 800	Electrodes for Batteries & Fuel Cells

Novamet Speciality Products Corporation

Established in 1980, Novamet is a subsidiary of Vale Inco, the worlds leading nickel producer. At Novamet's Wyckoff, New Jersey facility, Vale Inco nickel powders are enhanced by a variety of manufacturing processes to produce unique Novamet products such as flakes, oxides and powders with distinct particle size distributions.

A proprietary ball milling process reshapes nickel and other powders into flake. Flake thickness, diameter, size distribution and appearance are all precisely controlled.

A wide range of nickel oxides are produced which offer a choice of purity, particle size and surface area to satisfy a variety of end use applications.

Screening and air classification equipment is available to custom tailor nickel powder size distribution to customer needs.

Vale Inco nickel powders are repackaged to specific customer container and weight requirements.

Our objective is to provide products that satisfy the needs of our customers. Where our existing product range does not fully satisfy your specific requirements, we will work with you to design products that do.

NOVAMET

Novamet Specialty Products Corporation
A Vale Inco company
681 Lawlins Road, Wyckoff, NJ 07481
(201) 891-7976 • FAX (201) 891-9467
www.novametcorp.com

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