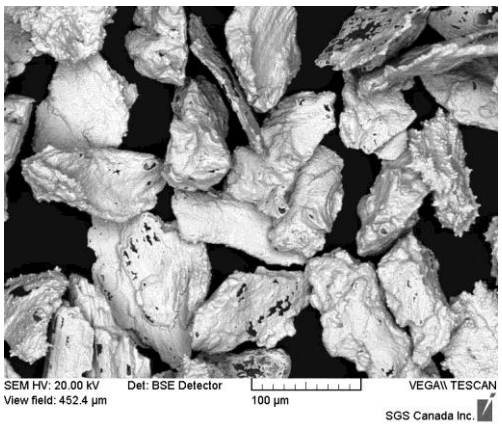
Conductive Fillers
Advanced Powders

- High-Purity Metallic Shell (99.9% Ni)
- Low-Density Conductive Matrix
- Ultra-Low Volume Resistivity (<3 to <5 mΩ-cm)

Weber's Vapour Nickel-Coated Graphite (VNCG) is the world's only vapour nickel-coated graphite. Each graphite particle is encapsulated atom by atom with a continuous shell of **99.9% pure nickel.** This advanced process ensures exceptional conductivity, superior coating uniformity, and rigorous lot-to-lot consistency inherent to the synthesis method itself.



THE NVD DIFFERECE

99.9% Pure Nickel Shell

Our dry vapour deposition process lays down pure nickel with zero plating salts. This guarantees an ultra-clean coating completely free of iron, sulfur, or chloride residues.

The Only Vapour-Deposited NCG

Atom-by-atom encapsulation forms a continuous, fully closed shell with minimal exposed graphite, maximizing reliable electrical contact points.

Excellent Structural Integrity

The nickel shell resists cracking or delamination under high compression, flexing, or extreme thermal cycling, maintaining stable baseline conductivity.

Optimized Percolation Threshold

The highly uniform, continuous conductive shell allows formulations to reach target resistivity at lower filler loadings, preserving elastomeric properties and improving compound flow.

APPLICATIONS

EMI / RFI Shielding

- Low, exceptionally stable volume resistivity.
- Broadband shielding effectiveness across critical frequencies.
- Uniform particle encapsulation minimizes unshielded graphite voids.
- High corrosion resistance after environmental aging.

Application Note: Our closed vapour shell provides the consistent conductivity and coated-flange "bite" required by high-performance gaskets at a fraction of the cost of silver-coated fillers.

Battery Electrode

- High purity: free from detrimental iron, sulfur, and chloride contaminants.
- Excellent electrochemical stability over extended cycling.
- Homogeneous dispersion in both aqueous and NMP slurries.
- Controlled tap density for optimal volumetric packing.

Application Note: Our dry vapour process bypasses the chemical contaminants common to traditional wet-plating baths, preventing unexpected battery degradation.

TYPICAL ANALYSIS

Product	Grade	Nickel (wt%)	D10 (µm)	D50 (µm)	D90 (µm)	Tap (g/cc)	Apparent (g/cc)	Vol. Res. (mΩ-cm)
VNCG050	Fine	57–63	35	50	80	1.8	1.2–1.5	<5
VNCG085	Coarse	58–63	58	85	138	1.8	1.3–1.5	<3

Volume resistivity measured in silicone rubber at 2:1 filler-to-rubber by weight. A Certificate of Analysis with PSD, apparent density and nickel content provided with every batch. Both grades are the 60% nickel weight class; VNCG050 and VNCG085 differ by particle size but are the same in nickel content.

CAPABILITIES » C of A every batch · Mastersizer 3000 sizing · on-site tap density & volume resistivity testing · RoTap screen analysis · custom R&D coating incl. alternative substrates · MOQ 55 lb / 25 kg pails