

ADVANCED MATERIALS

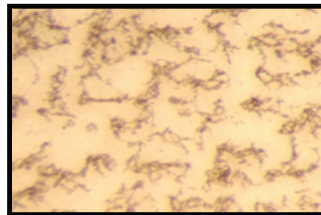


APPLICATIONS

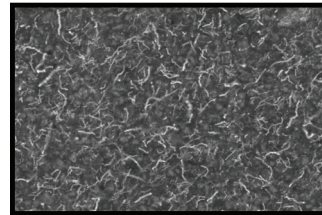
- Thermoplastics
- Thermosets
- Prepregs
- Paints
- Sealants
- Gaskets
- Resins

BRANCHED NICKEL STRANDS (BNS)

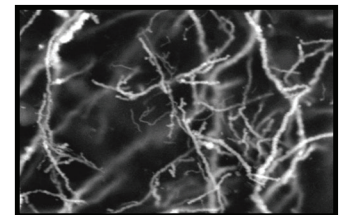
BNS are a three-dimensionally structured advanced material format that provides higher levels of electrical conductivity with less weight and loading than traditional materials (such as metal flake, spheres, graphite, or coated glass). Our CVD process creates three-dimensionally interconnecting and branched nickel structures, which are very effective at imparting electrical conductivity and electromagnetic shielding into mixtures and composites. BNS solutions are tailored to fit specific needs, with typical loading ranging from 2% to 20% by volume. Mixtures made with BNS exhibit higher conductivity at lower loadings than other conductive materials. BNS are also pure nickel which is inherently ferromagnetic and corrosion resistant.



0.5 Vol% in water, 200x



5 Vol% in epoxy, 500x



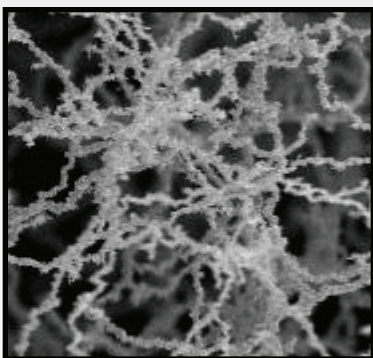
10 vol% in urethane, 2500x

PRODUCT ADVANTAGES

- Three dimensionally branched and interconnecting structure
- High conductivity at low volume loadings
- Creates a dispersed three dimensional conductive network
- Ferromagnetic and corrosion resistant
- Increased cost savings compared to traditional solutions
- Improved material performance capabilities

Branched Nickel Strands

Product #	Grade	Bulk Density (g/cm ³)	Specific Surface Area (BET) (m ² /g)	Format
3AX125	Premium Grade	0.1 to 0.14	2 to 4	powder
3AA150	Standard Grade	0.14 to 0.18	2 to 4	powder
3FF200	Fine Grade	0.18 to 0.23	4 to 5	powder



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MADE IN USA

M-003: 06-05-23