Transforming Businesses with Nanotechnology



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Molecular Rebar® for Conductive Inks

Molecular Rebar[®] is an advanced carbon nanotube additive tailored to disperse in a wide range of conductive inks. Molecular Rebar[®] takes ink formulations to the next level of rugged performance in a range of applications: *wearables, smart clothing, flexible circuitry, and bendable optics.*

Features







Improved Adhesion



Improved Strength and Flexibility







Storage Stable



Application Benefits

- Improved print quality and resolution compared to standard inks
- Thinner traces = cost reduction for end-user
- No print head clogging
- Improved sintering
- Molecular Rebar[®] further enhances flash sintering
- Higher conductivity allows thinner films
- Reduced flaking and fracture
- Compatible with a wide variety of substrate materials
- Allows reduced binder content
- Higher resistance to cracking upon bending
- Maintain electrical conductivity under stretching
- Enhanced durability in dynamic flexing
- Applicable to all types of conductive inks
- Expanded formulation capability
- Drop-in to current manufacturing processes
- Over 1 year shelf-stable
- Offered in a range of solvents aqueous to organics
- Fluid or grease product format (1% to 12% wt Molecular Rebar[®] available)

How Molecular Rebar® Works





Key Performance Benefits with Molecular Rebar®



Improved Flexibility and Adhesion on Creasing

No Molecular Rebar[®]



0.16% Molecular Rebar®



Cracked

Intact

The Company

Molecular Rebar Design, LLC, based in Austin, TX has commercialized a breakthrough form of tailored carbon nanotubes called Molecular Rebar[®] with capacity of 50 tons/annum: the world's first carbon nanotubes cleaned, disentangled, and individualized from the usual clumps. These qualities enable enhanced performance for a myriad of high value materials and applications.



Product Information

- Quantities to meet customer needs
- Fluid or grease formats for digital to screen ink types
- Range of concentrations available: 1 to 12% wt Molecular Rebar®
- Pricing available on request

For inquires, please contact: Molecular Rebar Design, LLC 13477 Fitzhugh Road · Austin · TX · 78736 (512) 394-0922 · <u>info@molecularrebar.com</u> www.molecularrebar.com

