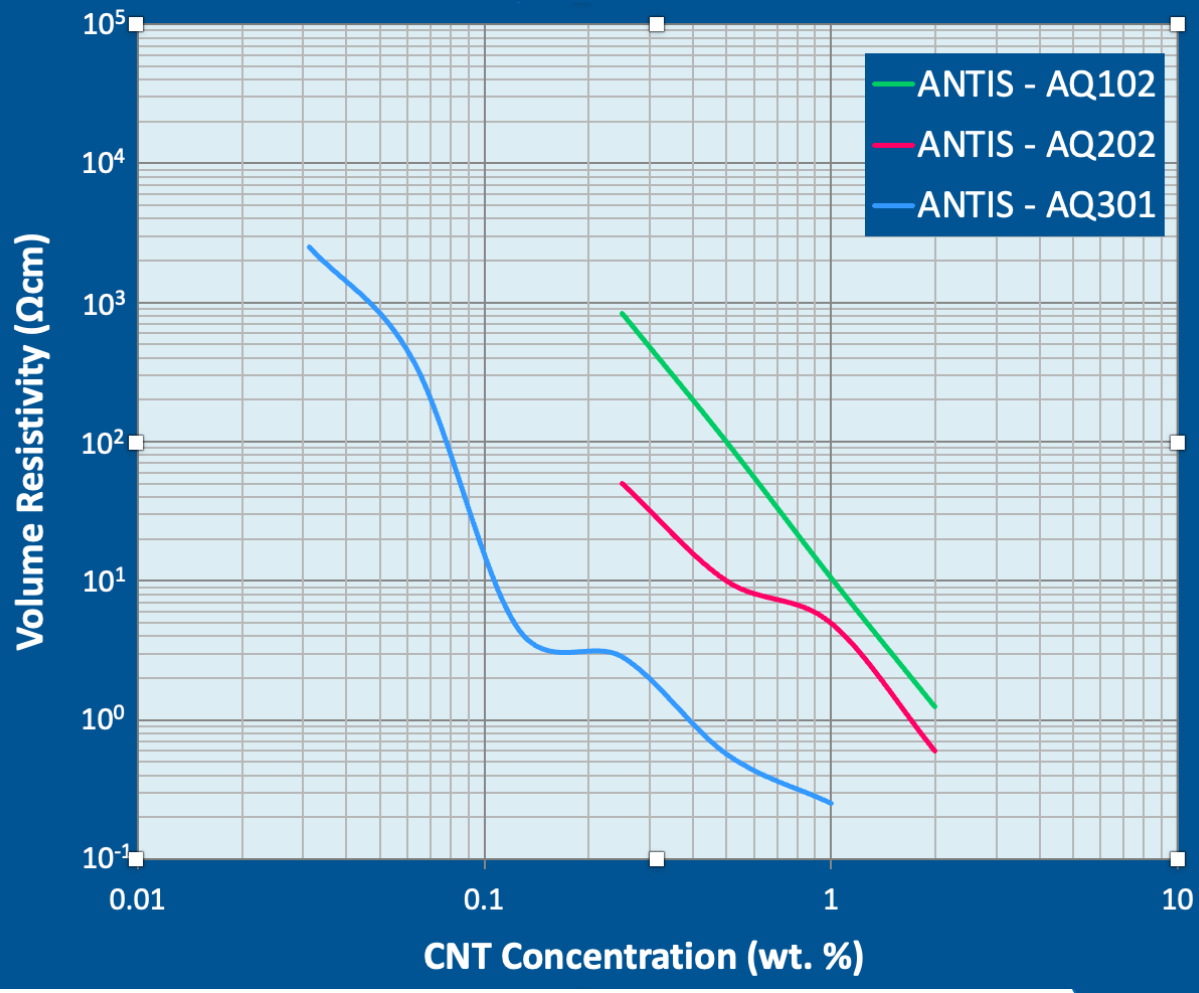
NANORIAL

SCALABLE, LOW COST, AND BREAKTHROUGH CARBON BASED SOLUTIONS FOR CONDUCTIVE COATINGS

ANTIS™ – AQ Conductive Drop in Additive

Conductivity of a coating with a thickness of <10um
(dry coating thickness)



ANTIS™ – AQ102: Aqueous dispersion of high aspect ratio CNTs (Cobalt catalyzed based)

ANTIS™ – AQ202: Aqueous dispersion of high aspect ratio CNTs (Cobalt catalyzed based)

ANTIS™ – AQ301: Aqueous dispersion of high aspect ratio CNTs (Iron catalyzed based)

KEY ADVANTAGES

- **Scalable** and **cost competitive** (produced using NANORIAL's proprietary nano filler exfoliation technology)
- NANORIAL conductive carbon additive, **ANTIS**^{TM} enable **ultra-low carbon dosage** starting with 0.01 wt. %
- **Uniform dispersion** and distribution of fillers eliminate hotspots
- Improve mechanical strength of Silicon Anode compounds
- Ease of processing and **enhanced coatability**

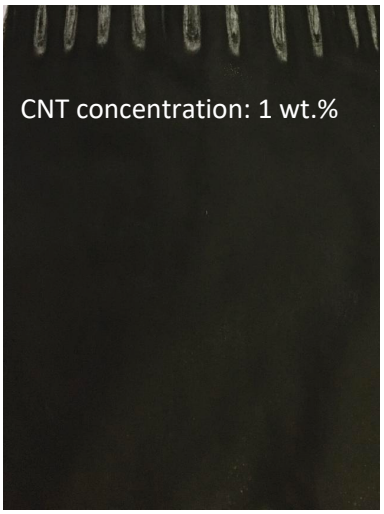
PROCESSING ADVANTAGES

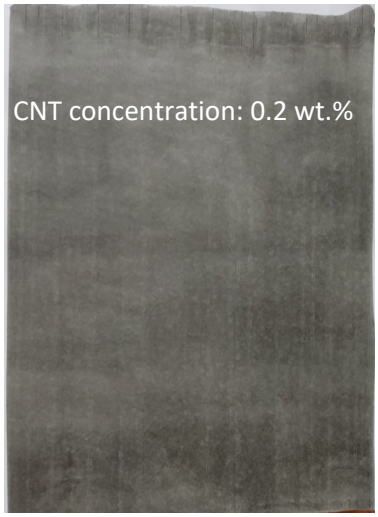
Generally, CNTs even in small quantities might lead to increased viscosity of the formulation. Therefore, CNT masterbatch dilution is a multi-step process using high shear mixers, three roll mills, and other speciality mixers for an extended period. This means that CNT masterbatch customers need significant capital investment and incur substantial operating cost to adopt CNTs, converting from traditional fillers like carbon black and graphite.

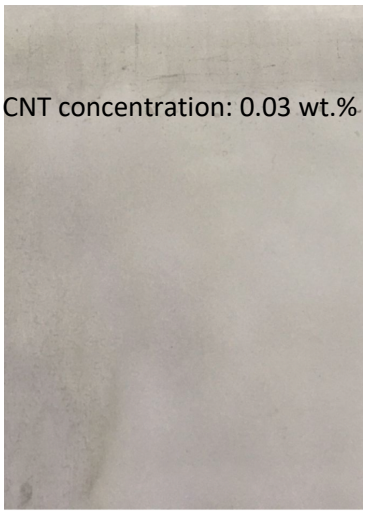
NANORIAL's ANTIS^{TM} dispersions does not possess these processing disadvantages due to superior dispersion of CNTs in water.

ENHANCED COATABILITY

The following images represent coatings made using ANTIS™ – AQ301 at different concentrations of CNTs. The dry coating thickness is <10um. The coatability of the dispersions is greatly enhanced and there cannot be seen any agglomerated large particles on the coatings.







KEY APPLICATIONS

- Batteries
- Fuel cell & energy storage
- Conductive coatings
- Composites
- Thin film heating
- Microwave curing

COLLABORATION/PARTNERSHIPS

We have 20+ years of expertise in nano and coating materials research and development. We collaborate with our partners to produce custom formulations with a level of support and service that is hard to match.

We invite battery & fuel cell manufacturers to partner with us to unlock the true potential of CNTs and achieve superior properties which is not possible otherwise.

NANORIAL, OPENING DOORS TO NEXT GENERATION OF MATERIALS TECHNOLOGY

LET'S GROW TOGETHER

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