

nanophase technologies corporation
INNOVATE. PERFORM. SUCCEED.

Commercializing Nano-Enabled Products

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September 27, 2011



Cautionary Statement

Certain statements included in this presentation may constitute forward-looking statements within the meaning of applicable securities laws. These statements reflect what Nanophase Technologies anticipates, expects or believes may happen in the future. Nanophase Technologies' actual results could differ materially from the outcome or circumstances expressed or implied by such forward-looking statements as a result of a variety of factors expressed from time-to-time in the Company's periodic filings with the Securities and Exchange Commission (the "SEC").

The forward-looking statements contained herein are made only as of the date of this presentation, and Nanophase Technologies undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.



Corporate Information

Nanophase Technologies Corp.

Corporate Headquarters:

1319 Marquette Drive

Romeoville, IL 60446

630.771.6700

Second manufacturing facility in Burr Ridge, IL

www.nanophase.com

Ownership: Public since 1997

NASDAQ: NANX

Fiscal Year: December 31

Common Stock: 21.2 million shares outstanding

History – Leading Nanotechnology Growth

- 1989 – Spun out of Argonne National Laboratory
- 1995 – Launched 1st manufacturing process → Physical Vapor Synthesis (PVS)
- 2001 – Launched 2nd manufacturing process (NAS) → Broad compositional palette capabilities
- 2002 – Commercialized dispersion and surface treatment capabilities
- 2003/2004 – BASF commercialization of ZnO in Personal Care market
- 2004 to Present – Significant Nano adoption
- 2008 to Present – Platform to Market Driven



Marketing Strategy – Change in Model

- Changes in 2008 to 2010
- Partners
 - BASF
 - Shift from “Exclusives” to “Non-Exclusives”
- Customer Direct
 - Targeted application solutions
 - Dramatic increase in revenue opportunities since 2008

New customers in field of use

More revenue from previously exclusive customers



Benefits of Nanophase's Innovative Solutions

- Transparency – literally and figuratively
 - UVA and UVB blocking
 - Abrasion resistance
 - Superior polished finishes
 - High optical clarity and gloss
- Long-lasting protection
- All natural
- No change in current manufacturing process
 - We sell the way manufacturers want to buy
 - **Applications expertise**



Customers receive ready-to-use products in which the nanoparticles are stabilized at their primary particle size, with no secondary structure or agglomeration.

Patented / Proprietary Nanophase Technologies

Plasma Synthesis Manufacturing



Surface Treatment

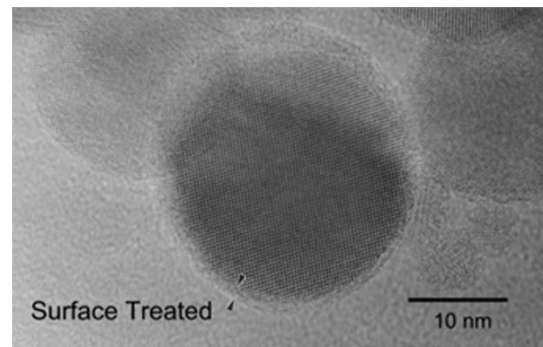
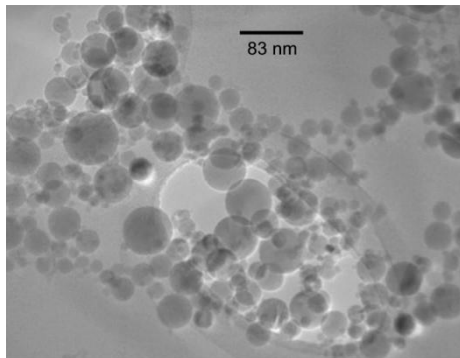


Formulated Dispersions

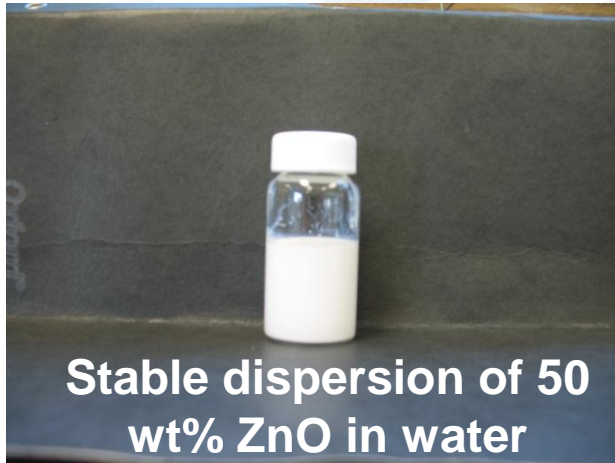
- Nano Metal Oxides from 10 nm to 1 micron
- Fully dense, Crystalline and Discrete

- Wet and dry surface treatments
- Enhanced functionality

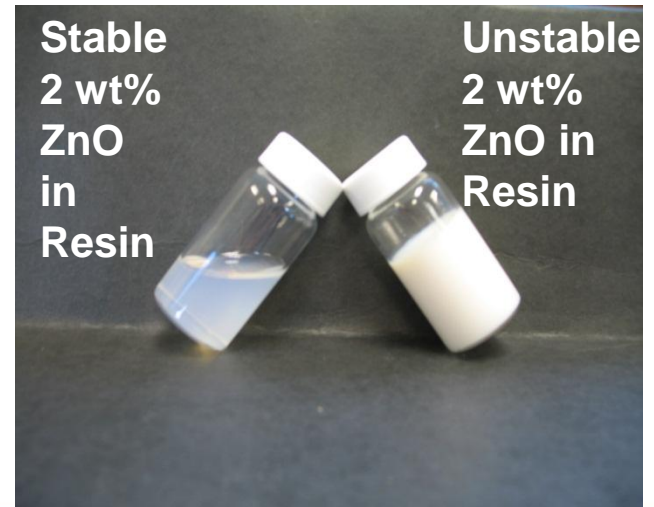
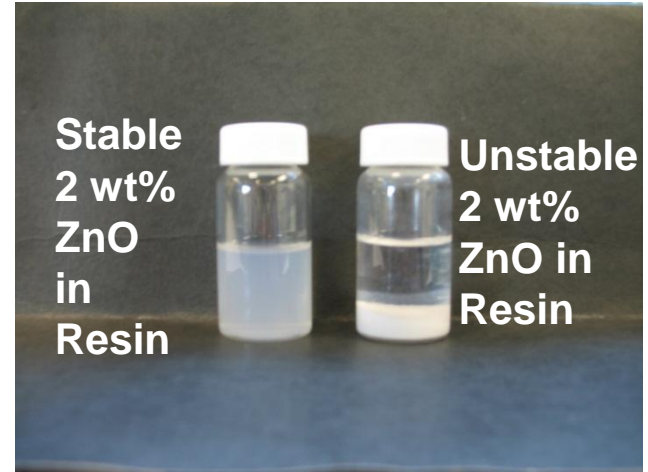
- Formulated to Enhance Performance
 - ***Compatibility is Key***



Compatible Nano Particles Significantly Improve Performance



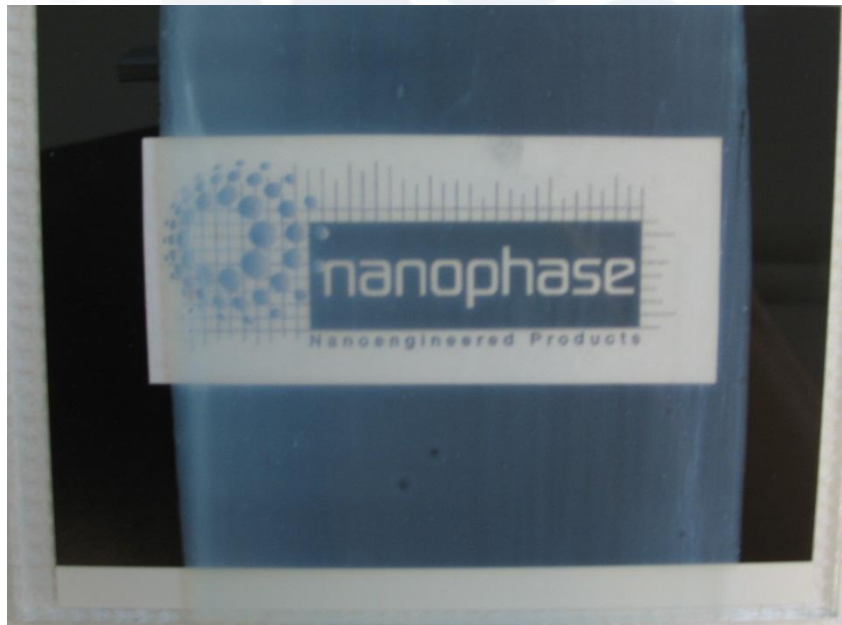
Add to resin



Compatible Dispersions Enable Products That Perform!

Optimized for Performance: Transparency in Thin Films

***Incompatible 1 wt% ZnO in
1 Mil Clear Coating***



Agglomerated Particles

***Compatible 1 wt% ZnO in
1 Mil Clear Coating***



Discretely Dispersed Particles

Compatible Dispersions Enable High Transparency

Nanophase Technologies – Market Segments

Nanophase is a leader in providing nanomaterials technologies that enhance product performance in a manner that is impossible or impractical with conventional/organic materials.

Our nano-based solutions have been incorporated in commercial products and global brands serving markets as diverse as:

Personal care

Scratch Resistant Coatings

Automotive

Exterior coatings

Architectural windows

Textiles

Electronics

Plastics

Medical Diagnostics

Nanophase has a portfolio of proprietary and patent protected technologies to manufacture, surface treat and disperse nanoscale metal oxide particles, resulting in superior performance of products in target markets

Products Incorporating Nanophase Technologies



ELECTRONIC MATERIALS
CMP TECHNOLOGIES



- Sunscreens (*GMP*)
 - Daily Wear
- Paints and Stains
- CMP Slurry (*ppb*)
- Laminated Flooring
- Optical Polishing
- Architectural Windows
- Car Wax
- Polyurethane Wood Finishing
- Foot powder
- Textiles

Focus Risk!!!

Products and Markets

NanoArc® ZnO: Personal care products (cGMP)

Exterior stains and coatings



NanoArc® Al2O3: Scratch resistant coatings

(UV-cured)



**NanoArc® CeO2 & NanoArc® Al2O3:
Precision polishing (electronics)**



On-Going Market Development

- Maintain dominant position in personal care market through BASF
- Robust application development efforts in three market initiatives:
 - Exterior coatings (UV resistance)
 - Scratch resistance
 - Electronics (polishing)
- Emphasis on products designed *specifically* for targeted markets and applications
- Identify IP to protect our products, processes, or applications in targeted markets
- Opportunistic applications such as energy, plastics and medical diagnostics---*Part of Our New Market Queue*

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Thank You

