

NODIS – Market Fact Sheet

The need we fill

Nodis TruTint responds to unmet market demand for a color, instant switching smart glass technology. And, because of its unique ability to control infrared levels, TruTint can cut energy costs in half and reduce CO2 emissions by 40%.

These benefits are critical to infrastructure and our overall environment. Buildings consume 40% of a city's energy use and account for 45% of its carbon emissions. TruTint also offers significant benefits to the transportation and automotive markets, improving comfort, reducing glare and reducing the electrical load for EV vehicle air conditioning systems.

Nodis anticipates even greater market opportunities as more and more governments set higher standards for infrastructure energy use and CO2 emissions

Specifically, the global glass market is predicted to increase by 2.5 times between 2017 and 2023, moving from \$3.32 billion U.S. to \$8.5 billion U.S. Europe is the dominant region of growth. Nodis is poised to outperform competitors due to:

- **Speed of Adaptability** – Adjusts light, color and infrared filtering properties in less than one second, compared to up to 20 minutes for other smart glass technologies. This maximizes its value in shielding glare, controlling infrared and maintaining occupant comfort.
- **Lower cost** – Up to 10X less than first generation smart glass.
- **Greater Return** – Even more cost effective and environmentally sensitive due to its infinite number of tints and infrared control, saving as much as \$1 million U.S. in annual energy costs.
- **Electronic display capabilities** – Converts windows into transparent displays to allow advertising, other messages, video and images—disrupting and taking market share from a second market valued at \$200 Billion U.S.

Sales & Pricing:

Primary sales strategies will target glass manufacturers who intend to diversify their product lines. Initial revenues will flow from Joint Development and Technology License Agreements with these partners. Additionally, Nodis will sell its smart glass film to partner manufacturers. The total available market for smart glass in 2020 stands at 7.5M sq. meters/year (Nodis \$TAM of \$1.8B).

Nodis also will pursue sales opportunities with glass processors and end user suppliers.

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NODIS – Company Fact Sheet

Nodis came to life in 2015 to commercialize the nanoparticle-based smart glass and display technology developed by Dr. Sergey Shokhor and his team. The company has achieved significant success in bringing its unique smart glass technology to market, attracting investment from the Singapore National Research Foundation and Get2Volume.

Nodis starts with TruTint smart glass now to improve building efficiency. Nodis then provides TruTint Power to also generate electricity. Finally, Nodis turns windows into displays with TruTint Display.

Nodis has won three separate international competitions with its innovative technology, including the Innovate 4Climate World Bank Summit, Korea Startup Grant Challenge and Shell Idea Refinery.

Even as Nodis sets the standard for smart glass that dramatically reduces energy costs and CO2 emissions, they're also exploring diverse product applications such as display and camouflage glass. In May, 2020, Nodis was selected a supplier of Interest by the U.S. Department of Defense to explore the potential of camouflage glass on the battlefield.

Nodis' 2020 operations encompass seven key processes:

- Researching advanced materials for smart glass
- Prototyping smart glass films using its unique processed nanoparticle approach
- Micro-imprinting films to encapsulate the nanoparticles
- Scaling up production of TruTint smart glass film
- Designing and manufacturing control units
- Selling to glass manufacturers

These seven functions take place in Saratov, Russia, Seoul South Korea and Columbus, Ohio, U.S. Nodis also will open regional sales offices Asia and Europe.

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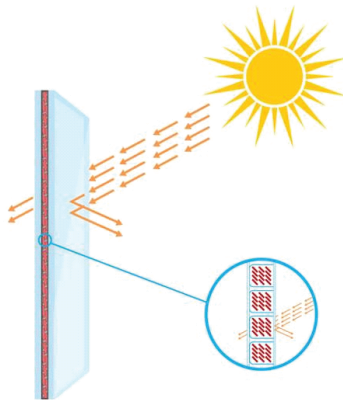
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NODIS – Technology Fact Sheet

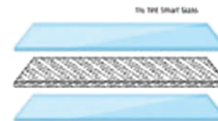
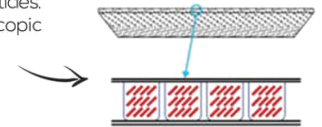
Nodis developed a unique technology to transform windows into conduits for greater comfort and energy efficiency. TruTint instantly adjusts tint, color, infrared and temperature, adapting to occupant preferences while dramatically reducing energy costs and the building's carbon footprint.

Nodis technology suspends color rod-like nanoscale particles in an organic liquid and then sandwiches them between two pieces of glass. In a natural state, the suspended particles randomly organize and then block light. When voltage is applied to the suspended particles, they align and light passes through. Thus, the amount of light allowed into the build can be regulated by the degree of voltage applied.

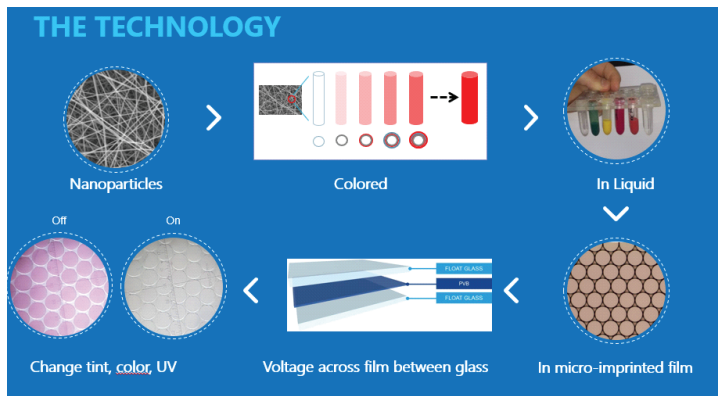


INSIDE TRUTINT GLASS

We start with color coated nanoparticles. These are suspended in microscopic wells in our nanoimprinted film.



The film is then sandwiched between two sheets of glass (laminated windows). Electric power is connected to each side of the conductive film coating.



Nodis starts with nanoparticles. Nodis then color coats these nanoparticles using its proprietary and patented approach. These particles are suspended in a liquid and encapsulated in micro-imprinted wells in film. This film is laminated between two pieces of glass. A voltage is applied across the glass to determine the tint and amount of infrared. Separate R-G-B layers are used to implement color switchable glass.

Since the core of Nodis' technology is an optical shutter that changes its transparency when voltage is applied, Nodis also creates other smart glass products. One example is camouflage glass, an initiative under exploration currently for the U.S. Department of Defense.

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NODIS – Leadership Fact Sheet

Sergey Shokhor, Ph.D., CEO – Dr. Shokhor has dedicated more than 15 years to researching and fostering innovative uses of display technologies and nano-materials, including EEFD, E-paper, AMVFD, MEMS and others. He has authored 14 patents and more than 20 scientific articles. He spent more than a decade working at a major US-based display company where he played a key role in establishing joint venture agreements and conceptualizing/designing display technologies. Sergey obtained his Ph.D. in Solid State Physics at Stony Brook University in New York, U.S. and a Master of Science in Physical Electronics at Polytechnical Institute in Saint Petersburg, Russia.

Mike Holt, Director, Business Development – With more than 25 years launching and growing advanced materials, semiconductor and B2B technology businesses, Mike understands how to harness and scale up innovations that meet market needs. He founded or led three technology start-ups and he has served as a divisional general manager for multinationals Texas Instruments and Silicon Systems. He has incubated, grown and invested in nine other companies. He holds a Master of Science in Electrical Engineering and an MBA from the University of California, Irvine. He also has two patents.

Denis Mosiyash, Chief Technology Officer – Nodis benefits significantly from Denis' specialized knowledge of Organic Light-Emitting Diode (OLED), electrophoresis, electro-rheological suspensions and nano-materials. He is a former lead engineer at Volga-Svet Ltd., where he conducted research and development on field emission displays, plasma enhanced field emissions, electrodeposition, electrophoretic deposition, and electro-rheological suspension. He also previously served as Lead Engineer for OLED Technology and has published seven scientific articles with three patents pending.

Dimitri Gorin, Scientific Advisor – With extensive experience in nano-polymer layers, colloids, microcapsules, smart materials and layer-by-layer assembly, Dimitri offers expert guidance on a variety of market applications. He has published 119 scientific articles and owns nine patents.



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