

WIRED

ALEX DAVIES TRANSPORTATION 04.08.16 9:00 AM

SHADES ARE SO 2015. THESE AIRPLANE WINDOWS TINT THEMSELVES



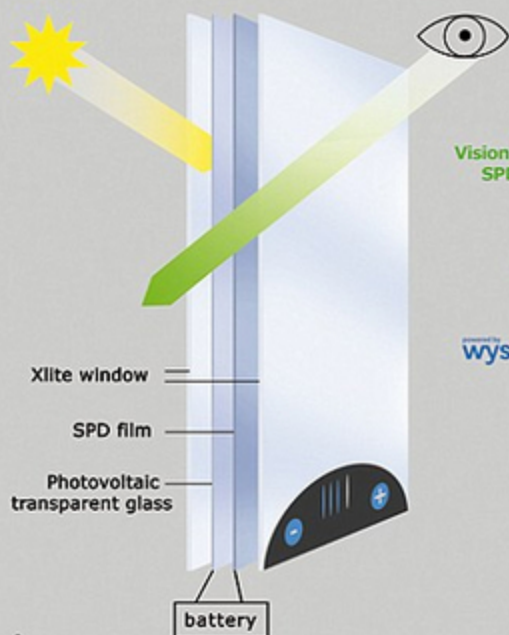
VISION SYSTEMS

INNOVATION IN AVIATION is a funny thing. Thanks to that pesky sonic barrier, commercial air travel isn't getting any faster (at least not [before NASA figures out a few things](#)). Until we can reduce the time spent in the air, improving air travel is all about working on the experience of being in the plane.

This usually means offering more in-flight movies, serving edible—perhaps even tasty—food, or, for the VIPs, [fitting a faux fireplace into a business jet](#). The French company Vision Systems is focusing on something it says hasn't been updated in decades: the window.

The top-tier supplier thinks plastic shades are for lameoids and the right way to block the sun is to make the window transition from transparent to opaque using microscopic particles within the pane. Those particles are contained in a film sandwiched between layers of polycarbonate or glass. When voltage is applied to the film, the particles align to let light through. Shut off the power and the particles fall into “disarray” and, the company claims, block more than 99 percent of visible light. Adjusting the voltage changes the opacity of the window.

Reduce fuel, installation and maintenance costs...



Vision Systems' SPD solution

+

wysipsGlass

- Self-powered dimmable window
- Gradually dimmable from clear to dark
- Fast switching light control
- Capacitive buttons
- Transparent photovoltaic cells integrated into the glazing
- Energy stored in battery
- Electricity reusable for lights or PEDs charging

SHARE PICTURE



...with a light, integrated, autonomous solution!



© Vision Systems

The technology is solar-powered and offers UV protection, but could have interactive features in the future

Nuance is based on Suspended Particle Device (SPD) technology, which operates in the same way as the electrochromic panels except the film goes opaque when electricity is not applied to it.

The specification reveals that the transition between light to dark is just a matter of seconds, compared to several minutes in the electrochromic system.

It also offers 99 per cent UV protection when the windows are darkened.

It works via a device that will automatically alter the amount of electricity being pumped through the window depending on the amount of sunlight hitting it or variables such as temperature.

The company is also offering the same technology for yachting and motoring industries.

However, the interactive features, reported by [Wired](#), including maps and flight paths, is still a work in progress but 'not impossible'.