

Vikuiti™ Display Enhancement Newsletter – June 2009

3M unveils industry's first combination film for monitors at SID

3M's Optical Systems Division unveiled the industry's first multi-function film for monitors. Vikuiti™ Brightness Enhancement Film – Reflective Polarizer (MNT BEF-RP-230) at SID Display Week in May. Delivering superior performance that's similar to that of two separate prismatic enhancement and reflective polarizer films, Vikuiti Monitor BEF-RP combines angular light management with polarization recycling in a single package only 230 microns thick. It provides uncompromised visual quality, while achieving maximum power efficiency and high display brightness in one convenient package.



By combining the films, energy consumption in monitors can be reduced by up to 30 percent compared to prism-only solutions, without sacrificing display visual quality or brightness. Vikuiti Monitor BEF-RP-230 also provides additional assembly efficiencies and waste reduction in monitors that are already using separate prismatic and reflective polarizer solutions.

“Today’s monitor manufacturers continue to face the challenge of increasing energy efficiency and ergonomics for monitors, while at the same time decreasing the number of components and minimizing costs,” noted Jim Bauman, vice president of 3M’s Optical Systems Division. “Our Vikuiti Monitor BEF-RP tackles these challenges head on.”

New Energy Star TV standards

The U.S. Environmental Protection Agency (EPA) is in the process of developing expedited new Energy Star TV standards. The EPA is expected to publish the final specification in September, 2009 for implementation in May, 2010. The May,

2010 time frame is six months sooner than previously scheduled.

Solutions to meet new Energy Star TV standards

Any technology that improves TV energy efficiency will help meet the new requirements, including the use of automatic brightness control or active dimming.

Power use can be reduced by removing bulbs or decreasing current to the bulbs. However, 3M scientists found they could achieve the same or better optical performance at up to a 30 percent power reduction using Vikuiti™ Dual Brightness Enhancement Film (DBEF).

“DBEF has been shown in our lab to reduce power consumption of TVs by up to 30 percent,” said Dave Lamb, 3M advanced physics research specialist. “In our experiments, we measured the brightness and power of TVs with and without Vikuiti DBEF in the backlight. Vikuiti DBEF increases the efficiency of the display by recycling light normally absorbed and lost in the rear polarizer of the liquid crystal panel.”

Your free screen-saver adventure is just a click away

Watch as your screen is transformed into a colorful tropical aquarium. Experience the sensation of soaring through the clouds. See nature unleash its power in the form of an alpine blizzard and a summer thunderstorm. Be amazed as bright oranges rain down from your screen and pile up deliciously. Or look up through the snow-covered pines and watch as the clouds break to reveal a beautiful starry night. If you have any questions or comments regarding this information, simply [contact us](#).



