



EIPC SPEeDNEWS

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OLEDS AS WALLPAPER

According to Yonhap News Agency South Korean flat panel maker LG Display showcased last week a detachable organic light-emitting diode (OLED) panel that sticks to the wall, renewing its pledge to focus on the high-end display as a future growth engine.

The 55-inch wallpaper OLED panel, presented as one of the company's future displays at a media event, is only 0.97 mm thick, weighs 1.9 kg and can easily be stuck to a wall with a magnetic mat, or removed from it. The new product is far slimmer compared with LG Display's existing flagship 55-inch OLED panel that is 4.3 mm thick.

LG Display also showcased a convex OLED panel that is mainly used for digital signage for large-scale outdoor advertising. The display panel maker has pushed for production of the OLED as its next growth driver. The advanced display helps make a TV much slimmer and lighter since it emits light itself based on the electric current without a backlight unit, unlike the liquid crystal display (LCD).

Yeo Sang-deog, the head of LG Display's OLED division, vowed to ramp up OLED production from the third quarter of this year to a substantial level that can meet clients' demand. "We should be able to supply a satisfactory volume to our clients from July or August, which means we're hoping to buckle down production as well as promotion from the third quarter," he told reporters at a press conference held after the event. Yeo, however, declined to elaborate further on which clients have shown interest in LG Display's OLED panels, other than its affiliate LG Electronics, to whom it sells a bulk of its products.

LG Display retained this year's sales target for OLED panels at 600,000 units and 1.5 million units for 2016. Yeo cited the improvement in yields for OLED panels as a key factor that will help achieve such a sales target. "It has taken a year and half for us to raise the yield to this level (for OLEDs), while it'd taken nearly 10 years to achieve the yield for LCDs," he said. LG Display will keep its focus on large screens, with a

plan to introduce an OLED panel as big as 99 inches within this year, the executive said. The company has released its 55-inch, 66-inch and 77-inch OLED models earlier in the year. It will also continue to upgrade its plastic OLED technology in the small- to mid-sized segments, such as transparent displays and rollable and flexible displays to be used for wearable devices or vehicle dashboards, according to Yeo. Source and top image: Yonhap News Agency elly@yna.co.kr

Read more at: <http://www.printedelectronicsworld.com/articles/7864/lg-display-unveils-wallpaper-oled-panel>

Concrete solar wall

Europe's first solar concrete wall was inaugurated at RECKLI's headquarter in Herne, Germany. The façade, designed by RECKLI to fit the solar film from Heliatek (HeliaFilm®), represents a novel approach to BIOPV - Building Integrated Organic PV.

RECKLI, the world leader in the design and manufacture of elastomeric form liners, and Heliatek are demonstrating the next step towards a sustainable, net-zero energy building.

This solar active concrete wall is the result of a joint development project of RECKLI and Heliatek. With an installed power of 1kWp, the south-west oriented wall will supply around 500 kWh of electricity per year. The energy produced will be used directly by Reckli. The annual energy output is expected to be about 25% above the yield of silicon technology.

Heliatek has already shown that its solar film, HeliaFilm®, delivers more energy under overcast sky conditions and at high temperatures compared to traditional solar cells. This advantage is based on the unique properties of its organic semiconductor. In addition, HeliaFilm® allows a wide range of colours and flexible layouts - both features sought after by architects and planners.

The solar active concrete façade in Herne comprises: 3 rows of concrete modules with vertically mounted integrated solar film (total area: 16,80 m x 3,50 m) Peak Power at standard test conditions: 1 kWp Expected power production per year: 500 kWh

"We focused for this pilot installation on how to combine the solar film and concrete modules in a reliable and aesthetic manner," explained Peter Henning, Sales Manager of RECKLI. "We want to demonstrate to architects, planners and investors, how the solar concrete future looks like." Dr. Thomas Bickl, Heliatek's VP Sales & Product Development, added: "We are very happy to see the progress of our joint development project. The unique features of our solar films like ultra-thin, low weight and flexible layout fit this application perfectly. About 130 million square meters of concrete façades are installed every year worldwide - this is our target market!"

Concrete façades of tomorrow RECKLI and Heliatek have been working together for 3 years on smart façade solutions, which combine various concrete structures and HeliFilm®. By using different colours, concrete facades can be aesthetically enhanced and simultaneously supply energy to meet urban power requirements. Building integrated organic photovoltaic (BIOPV) is able to make an important contribution to the urban power needs. The carbon footprint in large cities can be significantly improved. One major advantage of using HeliFilm® is that there is no need for ventilation or cooling systems in order to operate effectively.

Additional pilot projects of RECKLI and Heliatek are in the pipeline for 2016. Market entry is planned for the second half of 2017. Source and images: Heliatek Learn more at the next leading event on the topic: Printed Electronics USA 2015 on 18 - 19 Nov 2015 in Santa Clara, CA, USA hosted by IDTechEx.

Read more at: <http://www.printedelectronicsworld.com/articles/7859/helifilm-reg-on-concrete-fa-ade>