



Screens from PVF Mesh & Screen Technology GmbH for printed electronics applications

# Versatile and highly reliable

Screen printing technology for printed electronics has become a major market for PVF Mesh & Screen Technology GmbH. In OPE journal, the company from Neufinsing, Germany, highlights some of its latest applications and solutions

**H**ow would our world look today if there were no printing processes at all? The answer is: quite one-dimensional. One of the most economic and versatile printing processes for industrial and automated surface structuring of many different kinds of materials is screen printing.

Most people know screen printing from the textile industry, where it is frequently used for graphic applications. However, screen printing technology enables a whole range of other solutions as well. By using unique materials and screens, new applications such as printed electronics can also be enhanced by using screen printing technology.

Examples for applications within the field of printed electronics include sensors, antennas, electroluminescent surfaces, solar cells, OLEDs, displays, medical test stripes, flexible switches, batteries, transistors, diodes and resistors.

## Greatly varying requirements

PVF Mesh & Screen Technology GmbH is an internationally active family-owned company from Germany, which specialises in screen printing applications. It is a provider of both precision mesh and the precision screens of the MICRON series. PVF's MICRON precision screens are reported to be highly reliable and offer reproducible processes up to factory 4.0. They boast a very high registration, extremely precise printing results and a long lifetime.

The requirements for components in the field of printed electronics can vary greatly. Conductive, insulating and functional pastes or inks have to be printed onto a wide range of different substrates such as flexible films or abrasive wafers while meeting different requirements. Very high as well as ultra-thin paste lay downs, interruption-free structures, homogenous surfaces, dimensional accuracy or finest lines and gaps down to 20µm require the use of various high-performance materials and process parameters in screen



Printed sensors are one of many possible applications of screen printing technology on the PE market

manufacturing. PVF Mesh & Screen Technology GmbH is producing its MICRON precision screens according to the specific request of each individual customer. The company boasts knowledge and long-term experience in high modulus screen printing polyester mesh, stainless steel mesh, V-mesh, tungsten mesh and 3D mesh. Therefore, the MICRON screens meet the various needs and requirements of printed electronics.