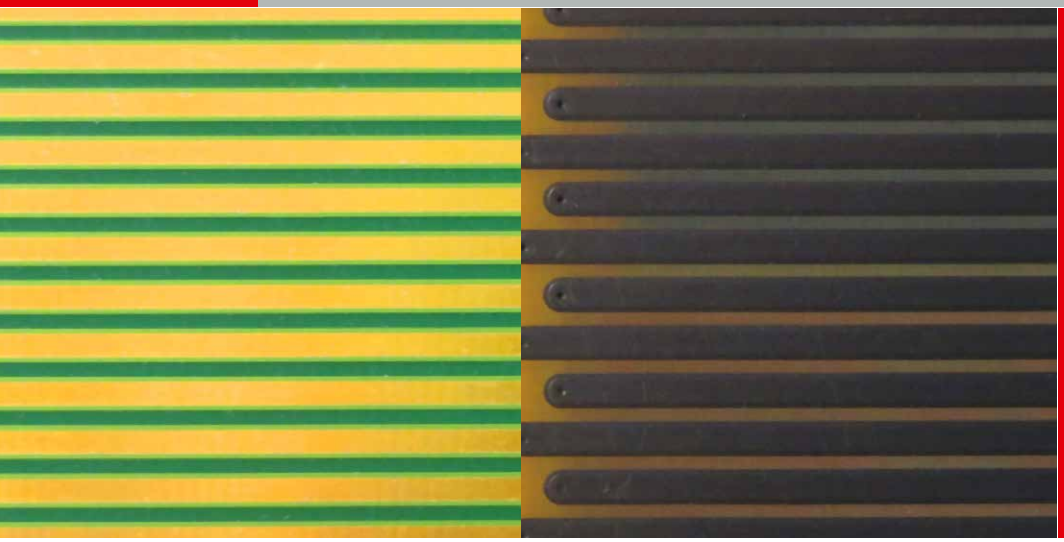
DESIGN TIP
Issue 3 | April 2016

Design Tip
Printed Polymer replaces expensive gold

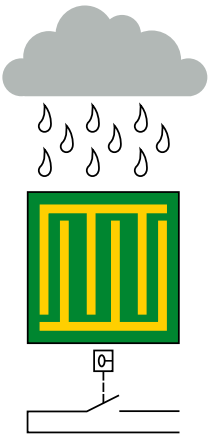


Sensor application with electroplated gold (left) and printed polymer (right)

In the majority of applications, an electroplating process is used to apply gold as a surface finish. It serves to protect conductor structures with an integrated sensor function from external influences. Although this does prevent the corrosion of copper, it is expensive.

Printed polymer technology is a cost-effective alternative. A coating process using conductive pastes provides reliable protection for the copper, without limiting its sensory properties. Tests have shown that when it comes to environmental influences, polymer pastes are more robust than gold solutions.

Its area of application and savings potential were demonstrated using the example of a sensor to detect precipitation (rain and snow). When precipitation falls on the sensor, contact between the two potentials is closed. The resulting signal can then be further processed, for example to automatically shut an open window.



Sensor principle

High savings potential

Depending on the size of the circuit board and the surface that needs to be protected, the use of polymer technology can achieve possible savings of up to 50%. These savings can be attributed to the different material and processing costs. When using this technology in the form of printed heating elements, the cost advantages can be even greater.

Our tip

Let's develop a cost-effective alternative solution for your application together.

More information at
www.we-online.com/polymer