New BioSeal coating promises 'safe to touch' print

A new British-developed and manufactured coating could revolutionise the production of antimicrobial printed products.



BioSeal has been developed by scientists at infection control R&D specialist Chemical Intelligence.

The firm has agreed an exclusive deal with Shackell Edwards, part of the Druckfarben group, for its use in coatings for the printing industry.

BioSeal is a biocide that involves micro-particles in a resin. The particles are harmless and dormant until touched, at which point they kill harmful bacteria including MRSA and E. coli.

Potential applications include healthcare items such as patient records, printed products for schools and GP surgeries, as well as notoriously germ-laden items such as banknotes.

Chemical Intelligence chief executive Rob Gros said the method means bacteria cannot build resistance, with tests showing that BioSeal reduces harmful bacteria on surfaces by up to 99.999%.

The firm has a patent pending on the technology, which it said remains effective for the lifetime of the product.

"It's a novel and clever technology that has allowed us to reach this level of efficiency, and not at high cost," Gros said. "I haven't seen another product anywhere that can get close to this."

Shackell Edwards has formulated a range of BioSeal coatings for print at its factory in Corby, including oil-based, water-based and UV coatings.

"It's helping printers add value to print," said Grant Penfield, group managing director at parent Druckfarben, who said BioSeal was more effective and less expensive than existing silver-based antimicrobial coatings.

He hopes this affordability and ease-of-use will lead to wide-scale adoption. "Printers' customers will benefit from a safe-to-touch antimicrobial surface at minimal extra cost. The additional cost in the coating is about 10%-15%, so it doesn't add up to much in the overall cost of a printed job," he said.

Users can add a special BioSeal brandmark to printed products that have been coated to indicate when a product carries the protection.

BioSeal has been field-tested by a range of printers using a variety of sheetfed and web presses, and with inline and offline coating units.

"The coatings work normally on-press, and don't change the appearance of the print or cause yellowing," Penfield added.

For more information visit www.bioseal.co.uk or www.shackell-edwards.co.uk.

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