

Business inspection: Coatings lead to healthier performance

Geoff Neal Litho found inline aqueous coatings offer a low-cost way of adding value.



The challenge

Leafing through an in-flight airline magazine at 35,000 feet is something many of us might do to pass the time during a plane journey. But what perhaps most of us don't consider is how many pairs of hands a product like this will pass through, and the potential for spreading bacteria.

But emerging technologies such as British-developed and manufactured coating additive BioSeal and other antimicrobial coated products are starting to become more popular in industries where it is important to keep the level of bacteria down.

This includes healthcare items, printed products for schools and GP surgeries and other highly circulated or potentially germ-laden items such as banknotes.

Middlesex-based printer Geoff Neal Litho has recently become the UK's first BioSeal certified sheetfed printer, meaning that when it uses antimicrobial coatings on printed products its clients will be able to display a BioSeal 'Safe to touch' logo on products that use the coating.

The business decided to seek the certification to set itself apart from competition and enable it to attract new clients and offer additional services to existing customers.

The move marks a natural progression for the firm, which has been offering aqueous coatings to customers since it invested in its first coating press, a five-colour Heidelberg Speedmaster XL 105 with inline coating, in 2010. It has since installed a six-colour Heidelberg Speedmaster XL 106 and a four-colour Heidelberg SM 52 Anicolor, both of which also have inline coating.

“Cross-infection control is a massive area, not just in the healthcare sector but in any public space, from schools to airports. BioSeal is still quite a new product, so it gives us a chance to be innovative as a business,” says Geoff Neal sales manager Gareth Davies.

BioSeal is a biocide in the form of micro-particles suspended in a resin. The particles are harmless and dormant until touched, at which point they kill harmful bacteria including MRSA and *E. coli*. The technology has been found to reduce harmful bacteria on surfaces by 99.999% and it remains effective for the lifetime of the product.

The BioSeal technology is distributed to approved ink manufacturers who incorporate it into their existing products. It can be used in print-based sealants, varnishes and coatings to offer up to a Log 5 reduction against harmful pathogens without significantly increasing costs.

“The important thing about BioSeal is that there is no difference to the look and feel of your print. You’re not changing anything, but for very little cost you’re removing a problem that most people don’t want to have; the transfer of germs. There’s very little additional work to do and very little cost associated with it,” explains Geoff Neal managing director Sam Neal.

The method

To achieve BioSeal certification the firm had to print sheets with BioSeal coating and send them off to the manufacturer, which ran a range of tests with two different

bacteria it applied to the sheets.

The manufacturer, and then an independent laboratory, then tested against a standard uncoated sheet as well and counted platelets at the end of the process to analyse the reduction in the number of bacteria.

Davies explains: “The process took about eight weeks overall. We passed with a greater than Log 5 reduction over 20 hours on both reference organisms. Put simply, the number of bacteria on the sample was reduced by more than 99.999% by the BioSeal coating.

“Now we’ve got the certification our clients can add the ‘Safe to touch’ logo to the back of their work. It’s a very new and innovative product and there’s a lot of interest out there from both print management companies and end-users that are looking at this product.”

The firm can now offer antimicrobial coating alongside its other standard aqueous coatings, which include gloss, silk and matt, water- and oil- resistant barrier coatings, fragrance coatings and drip-off gloss coating.

One of the major benefits of offering inline aqueous coatings, according to Davies, is the relative low cost in comparison to offline processes such as lamination and spot-gloss UV varnish.

And Neal says it has proven useful for firms requiring longer run lengths. “Spot-gloss UV varnish for run lengths of 500 copies is cost-efficient and it gives you a very startling effect. But a drip-off gloss coating enables you to do that on a brochure or longer-run, multi-pagination work and it gives a client huge cost savings.

“If you had 5,000 copies of three or four sections of a brochure that you wanted to highlight pages of with a gloss UV varnish, you’d be talking about two or three days lost. You won’t be losing that time with drip-off gloss coating because it’s done inline.”

Another major advantage of aqueous coatings are the green credentials, adds Neal. “These products are recyclable with low or no environmental impact, but you’ve also

got a quality improvement.”

The result

Since introducing aqueous coatings an increasing number of clients have used the service for a wide range of different applications.

“We’ve used it for things like innovative direct mail products, high-end auction house catalogues and fine art books. The automotive and property industries also highlight pictures using the drip off gloss coating,” reports Neal.

Davies adds: “We have done some long leaflet runs as well; some big retail clients have used coatings to highlight and enhance a piece of print. We can now enhance a lower value product without adding expensive offline processing.”

The company’s most used coating is the standard silk, which Neal says the company uses “all day, every day”. And Davies says that while fragrance coatings and antimicrobial coatings are relatively new, the firm is already developing a number of possible applications.

Neal explains that the business has tended to buy some coatings far more than others, in line with its customer demand. “We use a variety of regular coatings like premier, silk and gloss coatings. The drip-off, BioSeal and fragrance coatings are asked for less frequently, but we can still source these in sensible quantities and timeframes.”

Since starting to offer aqueous coatings four years ago, the firm has found that there are a number of added benefits. As well as the cost savings and the environmental benefits, Neal reports that some customers also prefer the subtlety of an aqueous coating.

“Spot gloss UV varnish gives you a higher gloss result, but being a little bit more subtle can be more appealing for a lot of people. A lovely corporate folder with a matt lamination and a high gloss spot UV varnish on it looks great and is quite hard-hitting, but it doesn’t work when you want to be a bit more subtle,” he says.

The business has also found itself able to work with a number of new high-end clients. “Buying the Heidelberg XLs with coaters has definitely boosted our turnover and enabled us to win contracts that we wouldn’t even have been considered for before,” says Neal.

One happy customer, recalls Davies, was car manufacturer Toyota for whose Lexus brand Geoff Neal recently produced a direct mail piece with a soft-touch coating.

A spokesman for Toyota said: “We’re really pleased with the effect the soft-touch coating has achieved. The addition of the coating on this mailer has given an extra dimension to the piece, the tactile feel enhancing the overall quality and reflecting well the brand positioning of Lexus.”

Geoff Neal Litho has found a way to add value at low cost by using aqueous coatings. And with demand for products treated with antimicrobial coatings looking like it will grow and grow, the company may be the UK’s first sheetfed printer to be BioSeal certified, but others will almost certainly follow its lead before long.

VITAL STATISTICS Geoff Neal Litho

Location Feltham, Middlesex

Inspection hosts Managing director Sam Neal and sales manager Gareth Davies

Size Turnover: £13.2m; Staff: 82

Established 1976

Products Litho print, digital print, direct mail, artwork and design, creative production management

Kit Five-colour Heidelberg Speedmaster XL 105 with coater and InPress Control, six-colour Speedmaster XL 106 with coater and InPress Control, four-colour SM 52 Anicolor plus coater, two Kodak Digimaster digital presses, Konica Minolta Bizhub

digital press

Inspection focus Adding aqueous coatings and BioSeal accreditation

TOP TIPS

- Follow technology developments and innovations closely to continually consider how to add value to your business. BioSeal is a relatively new technology that Geoff Neal Litho has embraced in order to offer more to its existing clients and win specialist contracts.
- Achieving the BioSeal certification requires attention to detail and good planning.
- Listen to the needs of your customers. Geoff Neal invested in Heidelberg technology with inline coating because clients were requesting it.
- Consider your average run lengths to determine the most suitable investment. Spot gloss UV varnish may be more suitable for companies with predominantly short run lengths, but for larger jobs inline coating is more time efficient and cost-effective.

Understand the benefits and differences of coating as an alternative to lamination. “Spot gloss UV varnish gives you a higher gloss result, but being a little bit more subtle can be more appealing for a lot of people. A lovely corporate folder with a matt lamination and a high gloss spot UV varnish on it looks great and is quite hard-hitting, but it doesn’t work when you want to be a bit more subtle,” explains managing director Sam Neal.

- Maintenance of machinery is vital to allow for a consistent coat across the sheet. “A lot of companies are running so hectically now that they don’t build in time for maintenance. It’s very important to keep machinery working to the best of its ability,” says sales manager Gareth Davies.
- Listen to your press manufacturer’s guidance. “When Heidelberg installed our first press, they did a great job of explaining how important the maintenance processes are to getting the best results,” says Neal.