

A touch of glass

SiO₂ coating, also known as Liquid Glass, is unquestionably one of the world's great technologies. The technology is applied by spraying or wiping a nano scale layer of pure, molecular glass on to any surface. The layer subsequently creates an easy to clean, antibacterial coating that lasts for months or years. Tomorrow's Cleaning reports.

Liquid Glass technology first made an impact in the UK media in 2010, when it featured in The Independent, the Daily Mail, the Discovery Channel and thousands of other publications around the world. In addition to winning recognition, Liquid Glass Technology was winning awards, including the NHS Smart Technologies award. The person responsible for developing awareness of this technology was Neil McClelland, the MD of LiquiGlas Ltd. Neil works in close co-operation with CCM International, of Germany, and together they supply SiO₂ ultra thin layering technology (Liquid Glass) to the world.

But why has there been such a lull between 2010 and today?

The answer? Evaluation and cost.

"When I first started working with this technology it was a completely new concept and it was a little like buying a TV in the 1930s. The production costs were quite high and the choice was limited. Now the coatings have been fully evaluated, the costs are significantly lower and the coating options have increased," explains Neil.

"This is evidenced by the fact that, in the next few weeks, SiO₂ coatings will be applied to all London Ambulances (interior and exterior) and the first major branded items will appear as wipes in the UK's leading DIY stores. We work with our own brands of Ecoglas and LiquiGlas and we also supply OEM formats."

The SiO₂ coatings are available in super-durable, anti-microbial formats, which are designed to withstand a massive amount of abrasion, for example on windscreens, wash



basins, computer keyboards, and door handles where the coating must withstand over 100,000 wiping actions. Alternatively, the coatings can be provided as semi durable 'eluting' coatings, which are designed to break down over a period of 10 to 14 days.

This second formulation has allowed for the creation of Bacoban a truly stunning anti pathogen coating.

Bacoban is a 'Class 2a Medical Device' and this means that it can be used in any hospital environment. Arguably, this means that Bacoban satisfies the most demanding criteria in the world.

So why would anyone want to design a coating which only lasts 10-14 days, especially when we can have a coating which lasts for years? Of course the answer is quite simple.

To create a long term, nano scale, anti pathogen coating (that kills bacteria, fungi and viruses) one needs a matrix, which allows the anti

pathogen agents to be released over time. This means that the coating is a little like a sponge, which allows the anti-pathogen agents to slowly move to the surface and to kill MRSA, AIDs, Ecoli, Ebola etc.

Bacoban is simply wiped on to a surface and it will remain active for 10 days. Bacoban has recently been certified for use in aircraft; being the all too common vector for pandemics. Bacoban was also recognised in the Office Product International awards, as offices are also significant infection hubs.

It should be noted that Bacoban wipes and sprays are being tested within NHS and DEFRA managed facilities in 2012.

For more information please visit www.ccm-international.eu or contact liquiglas@gmail.com

