The science of security printing is so advanced that technologists are able to incorporate many new capabilities. Globally, the phenomenon is growing, extending to brand protection and asset management. However, in South Africa, it is largely limited to government, big corporations and financial institutions.

The reality is that secure printing technologies see partial application in South Africa when compared with the overall print volume produced annually. Ballot papers, passports, ID books and other similar documents are examples of those that truly use secure printing technologies. Probably the most common one we experience on a local level is concert tickets and those typically use the tried-and-tested UV mark technology.

Another example of secure printing is applied for exam papers but much of the security there is a physical issue of securing facilities and processes around the completed documents rather than the documents themselves.

Industry scope
South African industries that typically print large secure documents include financial services, entertainment, retail and general corporates. Due to the fact that our country has a relatively small manufacturing industry, security printing applications are limited.

Our government, though, has some of the world’s best technologies for producing official documents with watermarking, extremely fine point printing of less than half a millimetre, and duplex registration etc.

Other high-use environments worldwide are those banks with MICR technology, which dates back to the early 1940s when manual cheque processing in the US became a cumbersome and financially onerous task, and ways were sought to automate it.

For general security materials, local print service providers normally receive paper with preformatted marks when they have security printing jobs, but they’re not common. Print service providers that work for the banks are a lot more common, which seek the traceability and tracking of materials but that’s generally done through software instead of printed marks of some type. The software is designed to meet auditing standards to ensure proper procedures have been followed throughout the supply chain. That’s almost an assumed capability these days.

Underlying challenges
The problem with many security printing technologies, and one of the primary reasons why they see limited use, is that they often require special readers at every point in the supply chain to be effective. That can be immensely expensive even if automation means it doesn’t slow the process by much, if anything.

Forgeries are a growing market in an increasingly consumerised and geo-dispersed manufacturing world, and globally that’s getting a lot of attention. Securing items can begin anywhere in the process from inserting forensic fibres during manufacturing to printing watermarks; incising a surface; forming an ornamental pattern; creating holograms; using magnetic ink, copy-evident paper, or prismatic colouration which can be produced on litho or digital presses; as well as using fluorescent dyes, RFID or thermochromatic ink, which triggers a change in the ink when it is heated to a specific temperature.

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