

Water-based Ink Provides Maximum Security for Demax Lottery Cards



Background

Demax DPI AD is Bulgaria's largest producer of instant lottery games. From a production plant in Sofia, Demax manages the entire production process for lottery cards – from electronic data processing, to printing and packaging of the final product. Production is carried out using a combination of offset, digital, flexo and screen printing, and is managed under constant on-site control by the Ministry of Finance.

Domino Printing Sciences (Domino) has worked with Demax for more than 20 years, via Arcon, a Domino distributor, and international supplier of high-quality industrial equipment. Domino and Arcon supplied a digital printer for variable data printing (VDP) on lottery scratch cards, as part of a solution that reduced production time from three weeks to just two days. The solution enabled additional capacity to support Demax's expansion outside of Bulgaria.



Fast Facts

AQ97BK is a new fast drying water-based ink that has been specifically designed for improved adhesion compared to standard water-based inks, with the ability to print on coated papers, glossy media, and Tyvek® substrates often without the need for high energy NIR dryers.

Demax AD serves customers from the food, pharmaceuticals, cosmetics, chemicals, transport, and advertising industries.

Demax AD is the largest Bulgarian producer of forms, securities and licensed production documents all under constant on-site control by the Ministry of Finance. Demax's services include hot stamping, holographic products, embossing, screen printing, and graphic design.

Demax used water-based AQ97BK ink to enhance security of their printed lottery cards. The fast-drying water-based ink replaced UV ink for variable data printing on each individual card. The K600i-based installation prints over 100 million cards per year.

Project Background

Demax approached Arcon as they needed a quick-drying water-based solution for printing on lottery cards. The current solution was not drying in line with current production line speeds.

UV ink was not a solution, as the UV inks can leave a slight raised print which can be an issue for security.

For lottery cards it's essential that the prize remains a mystery.



The Domino Difference – Utilising the Benefits of Water-based Ink

Domino needed to deliver a water-based VDP solution with the same proven print quality and stability as Domino's UV based printers.

Domino's newest hybrid solvent (water-based) ink (AQ97BK) and the K600i monochrome printer, had already been proven in other industries to dry fast enough without compromising the print quality. The high-resolution hybrid digital press uses drop on demand technology, so ink does not dry during the time it is idle in the printhead. However, when printed it must be 100% dry within a very short time frame to avoid smudging the rollers of the press. The new AQ97BK water based ink has a very quick drying time and is ideal for this type of application.

With AQ97BK, the production line was able to run at dependable fast speeds of 60m/min ensuring consistent productivity. Demax is currently running five K600i's and is planning to roll out the solution to other parts of its production line in the near future, in line with current expansion plans.

“Working with Domino and Arcon has been an ideal relationship. Their support, consultancy, and advice are outstanding and Domino's water-based ink with a quick drying time is ideal for our requirements, reinforcing their reputation for high quality. I would have no hesitation in recommending them.”

Ivan Nestorov, Technical Director at Demax