A Linde company

PRAXAIR
SURFACE TECHNOLOGIES

Linde

NovaSilver Engraving for Cardboard

In 1979, Praxair Surface Technologies (PST) created the anilox roll industry by producing the world's first laser-engraved ceramic roll. For more than a quarter century, printers and converters around the world have turned to Praxair for anilox rolls and coatings that fit their application and offer longer service life, reduced downtime and greater productivity.

There are a few methods to print weightless long-lasting support. One of the most improved methods over the last few decades is flexography, a system that is able to merge cost savings and superior quality for small and large presses and for graphics with pleasing color at one, four or even six color work.

Printers are constantly demanding consistent prints that involve various elements, starting from the corrugated paper substrate through the water base ink that is used daily.

Uneven ink lay-down can easily drop in patterning of the fluted cardboard. A higher grade of corrugated paper stock with finer fluting rather than coarser can help minimize this problem, but the choice of a proper anilox roll can really make the difference.

PST closely collaborates with the technical engineering divisions of various OEMs and is highly involved with major European flexographic organizations. This gives PST the opportunity to bring significant and focused ink transfer studies over this corrugated printing to the market.

Water based ink characteristics for white and brown craft, as well uncoated paper, was deeply analyzed. Usually supplied at 30-45sec (Ford Cup No.4 at 25°), the viscosity is dropped to 18-22 sec with a water dilution of 10%-20% bringing the PH to acid ranges of pH8.5-9.5 (that used to vary after long storage). Praxair knows the value of a corrosion resistant barrier and can supply the proper coating solution: LF4™. LF4 is a stainless-steel coating and is the perfect solution against the water-based ink corrosion. It acts as a barrier that limits oxygen and water access to the underlying metal surface.

Improve your results when printing on cardboard

NovaSilver Engraving for cardboard

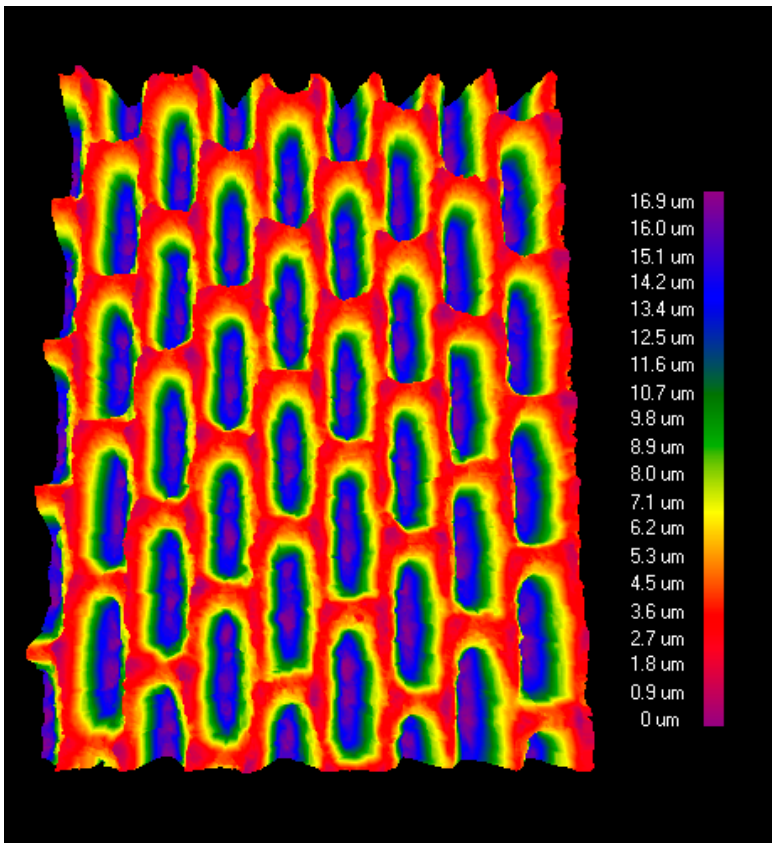
The ink studies also carried significant results with the ink lay-down. It has been demonstrated through different tests over various presses that the use of an increased anilox cell length supremely improves the anilox performance, both from the functional point of view of ink transfer and on the increased cleaning capacity.

From this, Praxair built on the knowledge from its large laser engraving portfolio to develop NovaSilver. This engraving has a precise and digitally controlled cell shape that ensures repeatability and reproducibility.

The higher opening to depth ratio allows for an increase in the print density by 10% without any specification change, and if this is not enough, the maximum achievable volume for a given screen count is increased by 20% to 30%.

The premium Praxair coating combined with the NovaSilver cell structure assures a longer transfer stability along the roller's life.

Praxair can also help when weight handling is a concern. Praxair's high-performance, light-weight carbon fiber roll has excellent torsional characteristics and increased bending stiffness.



NovaSilver Engraving

How to Get Started.
Contact Us Today.

Ask a Praxair printing specialist to schedule a complimentary anilox roll audit.

Call the nearest location or email psti-info@praxair.com.

Or visit www.praxair.com/printing to learn more.

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