

//polytype at K2022 in Düsseldorf

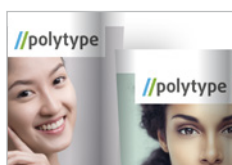


K2022
in Düsseldorf / Germany
19.10.-26.10.2022
Booth 4 C 56
VISIT US!

High performance for your digital future



K2022: //polytype –
high performance for your digital future 3



The next generation: //polytype DigiCup 2.0 4



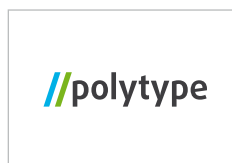
BDM 681/682: LED ink drying with energy
consumption of just 2 kW per hour 5



Industria Bandeirante, a Brazilian pioneer for
packaging containers goes digital 6



Industrial Composability Certification for
UVACURID® C81 decorated PLA Cups 8



//polytype worldwide 11

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K 2022: //polytype starts the trade fair with a global innovation

K 2022, the leading trade fair for the plastics industry, gives //polytype a unique opportunity to present the latest developments in the field of tube manufacturing.



At K 2022, //polytype will present a global innovation and milestone in the production of plastic tubes. A tube becomes a tube when a tube shoulder is applied to a sleeve using compression molding before being capped. The new //polytype HC130 combines these two processes in a single machine. At the K 2022, visitors will have the opportunity to see the revolutionary ORBITdrive concept in action live on the HC130.

Digital printing is not the only topic //polytype will be focusing on at K. It will also be demonstrating a business model that uses a cloud-based online shop solution to enable users to expand

their digital tube printing capacities in a cost-effective manner.

Alongside the central topic of digital printing, //polytype will also be displaying its expertise conventional printing that goes hand in hand with plastic tube decoration. These skills will be exhibited at the "Point of Knowledge" section of the stand. //polytype will showcase a new kind of prime offset process, standard offset decoration, and additional decoration processes. Flexo, process offset printing, screen-printing and hot stamping are all used on the Linearis.

In addition, //polytype will also be presenting another technical innovation that rightly bears the "Green Technology" label. LED drying is an eco-friendly and cost-effective alternative to standard UV drying for cup decoration.

Visitors will also have an opportunity to find out more about a significant improvement in dry offset print quality. Danish company Windelev, an expert in the manufacturing of printing plates, will be on site to answer any questions you may have.

Furthermore, Bulgarian company Mechatronica, will be presenting its latest developments in the field of laminated tube production – developments that are exceptionally cost-effective.

As you can see, there are plenty of great reasons to visit the world's largest trade fair for the plastics industry in Düsseldorf. **The K 2022 will be held from the 19th to 26th of October 2022. You may find us in Hall 4 at stand C56.**

...And, if you visit our stand after 4 p.m., there might be a tasty surprise waiting for you. More information will be available in the invitation we will be sending out shortly!

The next generation: //polytype DigiCup 2.0

The next generation of the //polytype DigiCup printing platform sets a new milestone for digital to shape decoration. The newest version will increase the quality of printing without sacrificing throughput speeds. The advancement also allows more flexibility for dramatic shapes and angles.

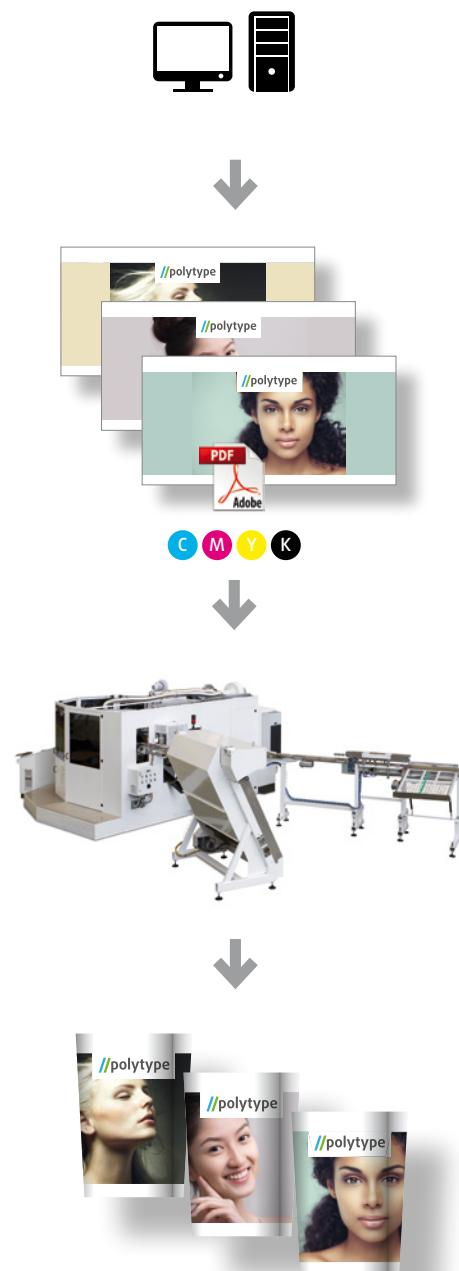


Much as an engine serves as the heart of the automobile, the digital heads can be seen in the same critical relationship to the printing machine. This innovation leap with the digital ink jet heads will provide a print resolution of 900 dpi while using finer ink droplets and pushing the already widely successful platform even further ahead. Photo realistic images and gradients will be near continuous tone quality.

By utilizing an advanced print head architecture ink droplets can travel farther and land more precisely. This advancement can significantly increase success when printing on cups that have side-wall changes of shelves, curves and various shapes.

While using the industry standard four-color process (CMYK) the technology is not limited to only white containers. Using a first down opaque white ink

followed by an LED cure before CMYK, the platform can easily manage clear as well as colored containers all while delivering superior quality on both micro short runs all the way to larger quantities usually done by older processes. With over a decade of experience supplying digital decoration to shape technology, //polytype continues to deliver customer centric advancements ever moving the industry standard ahead.



BDM 681/682: LED ink drying with energy consumption of just 2 kW per hour

Environmentally-friendly product manufacturing is a top priority in many industry sectors. //polytype has developed a new way to significantly reduce the energy consumption of cup printing machines by providing the option to dry the ink the use of LED lamps after the cup has been decorated. This involves a combination of LED drying lamps and an ink formulation specifically customized to the drying spectrum.



This technology has been used successfully in the US for some time now, while in Europe, a well-known ink manufacturer has taken on the challenge to quickly develop an ink formulation that meets all the European legal standards.

The advantages of LED drying are clear to see:

- Energy savings of several thousand kWh/year (compared to a standard solution)
- LED lamps last up to 20,000 hours
- Considerably lower operating costs (no need to replace the lamps and reflectors every 1,000 hours)
- The LED lamp does not need to be pre-heated (no idle time when switching on the machine or after an emergency stop)
- More eco-friendly, no use of mercury vapor, no ozone production, less heat generation and less UV radiation outside of the cabin

In the future, this solution could be available not only with new //polytype cup printing machines but also as a retrofit option on existing machines.

Contact us to find out more:
info@polytype.com / Keyword: LED cup drying

Industria Bandeirante, a Brazilian pioneer for packaging containers goes digital

The long-established, family-owned company, Industria Bandeirante, founded in 1945 in São Paulo, Brazil, has been a pioneer in the processing of PET for many decades. At a later stage, the production of packaging was added.

With the purchase of the //polytype DigiBottle, Industria Bandeirante was once again able to position itself in the market as a trailblazer in packaging technology.

Industria Bandeirante has been producing high-quality plastic packaging solutions made from PET, PET G, PS and PP for many decades; mainly for the household goods market, but also for the food, chemical, pharmaceutical, and cosmetics industries. With a workforce of 250 employees, the company mainly serves its domestic market, although a certain percentage of its production is also exported abroad.

For many years, Industria Bandeirante has been using the screen-printing process to decorate the containers at their site. Screen-printing is a common process primarily known for its vivid and opaque colors, but it also has its drawbacks. For example, it lacks the ability to create photorealistic designs and it is limited to a certain number of colors. These limitations and the need to decorate small print batches at low-cost led Industria Bandeirante to think about a digital decoration solution. The question then became: Does a high-

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ly efficient digital decorating machine that could meet Industria Bandeirante's needs already exist?

Their search for the right machine came to a happy end after their visit to //polytype's stand at the NPE trade fair in Orlando, FL, USA. Polytype had the right solution for Industria Bandeirante's needs.

The decision to opt for the //Polytype DigiBottle was made quickly. The machine opened up new possibilities for the decoration of bottles: Higher-quality photorealistic images as well as the possibility to print different designs in a single printing run for their customers. This acquisition significantly expanded Industria Bandeirante's range of products offered to their customers.

The pandemic also had an impact on this project. Although the DigiBottle is a highly sophisticated printing machine,

Industria Bandeirante was able to successfully install it in Brazil on its own, thanks to the highly-skilled technicians at Industria Bandeirante and the outstanding remote assistance from Polytype.

Now, after more than two years in production, we can draw a positive conclusion that the DigiBottle completely meets the expectations placed on this machine. Its versatility allows the operator to produce a large number of variable print designs in small batches with the ability to change the images in just a few seconds.

Industria Bandeirante has maintained an innovative spirit since the outset, and when asked how they see the future, they reply: "The investment in the DigiBottle allows us to have a unique selling proposition with which we can face the future with confidence."



Industrial Composability Certification for UVACURID® C81 decorated PLA Cups

The global plastic cup market is estimated to grow by over 8% CAGR between 2022 and 2027*. An increasing population with rising income and fast-paced lifestyles multiply consumption of ready-to-drink packaged beverages and dairy products such as yogurt. Recent plastics developments highlight the shift away from non-recyclable materials, facilitating customizable designs and packaging solutions that are catalysts for the market growth.

*Source: EMR Expert Market Research, Global Plastic Cups Market Outlook 2022-2027

Industry growth will be impacted by the attempts at bans on plastics across various packaging products and regions and a shift away from non-recyclable labels and multi-layer materials, towards fully recyclable packaging solutions. In recently, the industry was impacted adversely by the global lockdowns due to the COVID pandemic, which led to temporary restrictions on social gatherings and cafés and restaurants.

Manufacturers globally undertook actions to reduce their carbon footprint, including delivering solutions to enable production of plastic cups out of recyclable materials and encouraging the recycling of existing cups. Major drivers for the market development of recyclable and environmentally-neutral packaging solutions however, are rising incomes and lifestyles that lead to increased consumption of convenience food and beverage products. Furthermore, innovations in packaging type and design, such as personalization, are expected to aid market growth.

Zeller + Gmelin's dry-offset FCM UVACURID PrimeCup C81 ink series has demonstrated its key strengths in response to environmental goals, in combination with analogue printing solutions by Polytype. The UVACURID C81 BPA-free FCM ink se-

ries provides excellent performance under the highest industry requirements at maximum press speeds and is now further optimized and certified to fulfil the requirements for industrial compostability, when used on PLA cups according to DIN EN 13432.

The certification by TÜV Rheinland® DIN CERTCO requires that packaging including its inks is compostable within a 90-day limit, according to industrial composting standards. Certification verifies, that no heavy metals or other toxic substances are used, that the product

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Testing Scope of "DIN-Geprüft Industrial Compostable" and "Seedling"



Chemical characterization
(heavy metals and other toxic substances)

Check for complete biodegradability

Disintegration under practice-relevant composting conditions
+ quality definition of the resulting compost

Infrared spectrum for the identification of the material

For AS 4736 certifications: Additional test for earthworm toxicity

is completely biodegradable, and that disintegration under practice-relevant composting conditions and quality definition of this resulting compost was executed under infrared spectrum for the identification of remaining materials.

With this certification, Zeller + Gmelin can confirm to its customers that the use of UVACURID® PrimeCup C81 Ink series supports the trend of producing sustainable packaging and reducing the carbon footprint of plastic cups towards compostable PLA solutions.



Taking digital cup printing to a whole new level with the //polytype DigiCup 2.0



//polytype is setting yet another mile-stone in the field of container decoration. With its DigiCup 2.0 digital printing solution, Polytype demonstrates that highly flexible printing is also possible at high speeds. Up to 200 cups per minute (depending on the length of the printed artwork) can be decorated with the DigiCup system – and each individual cup can be different. Polytype's highly productive DigiCup enables high-resolution four-colour printing, including white pre-print, which can open up new business opportunities on clear and colored substrates.

//polytype – your partner for digital decoration

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