

Marabu at K 2016

Plastic is a fascinating material, and exceptionally versatile. Highly malleable, it can be moulded and drawn into practically any shape – and it can be printed. Marabu has now introduced a variety of new inks for screen, digital and pad printing that open up entirely new possibilities for industrial applications.



Tamm, Germany, 10 August 2016 – K 2016, taking place in Düsseldorf from 19th to 26th October, is the plastics industry's premier trade show – and Marabu will be among the exhibitors (hall 4, booth C63-04). The world's leading manufacturer of inks for screen, digital and pad printing will be presenting its updated product portfolio. The company will be showcasing UV LED-curable and low-migration inks for screen printing of plastic packaging, for printing in the automotive industry and for touch user interfaces, as well as solutions for the safe printing on sensitive products. Highlights will also include new technologies, such as a combination of screen and digital printing. For digital applications, Marabu will be demonstrating the possibilities of liquid coatings and water-based inks for plastics.

The Latest Big Thing – LED-Curable Screen Printing Inks for Packaging



LED UV curing is a fast-growing trend, particularly in the packaging industry. At the K trade show, Marabu will be showcasing its *Ultra Pack LEDC* ink line. Purpose-developed for packaging and containers, these LED UV-curable and highly reactive screen printing inks deliver outstanding results in terms of adhesion, opacity and gloss. They are suitable for a variety of substrates, including pre-treated HDPE/LDPE, polypropylene and PET/PETG, rigid PVC, polycarbonate and polystyrene. Furthermore, the *Ultra Pack LEDC* line dries completely without requiring additional post-curing. It also offers several other advantages. For example, LEDs do not emit heat. Consequently, the substrate is not subjected to thermal stress, and the printers do not have to be pre-heated, streamlining production. In addition, the process does not generate ozone, eliminating the need for extraction systems. All in all, LED technologies offer a host of benefits, making them increasingly popular.

Low-Migration Inks – New UV-Curable Screen Printing Inks for Personal Care Packaging



Customers have increasingly high expectations for inks, including those used for personal care packaging such as shampoo bottles and cosmetics tubes. Additionally, there is growing interest in low-migration inks. These products are specially formulated to limit the transfer of their ingredients to packaged items – safeguarding consumers from potential harm. Specifically, the ingredients of the new UV-curable screen printing inks from the *Ultra Pack UVCP* line are carefully selected and fulfil stringent purity criteria, based on standards for food packaging. Moreover, their suitability for the exteriors of packaging for personal care products is further verified by basic analysis and a risk assessment.

Branding on Containers

Take a look at the shelves in a supermarket, and it is clear what sells: products that are unique, eye-catching, and meet the needs of their target groups. And the first impression made by the packaging plays a key role. In fact, packaging – including for personal care items, food, and pharmaceuticals – is key to successful product marketing.

In terms of volume produced, PET is one of the most important thermoplastics. Against this background, Marabu has developed its *Ultra Pack* UVPHR ink line for screen printing on PET containers. As the range is extremely reactive, it is recommended for high-speed equipment. Moreover, *Ultra Pack* UVPHR inks are guaranteed to have excellent adhesion to PET materials – even when cured in suboptimal conditions. They also have an attractive, high-gloss appearance, and do not acquire a matte look-and-feel when exposed to heat. Further benefits include good resistance to mechanical stress, chemicals, and packaging contents.

Printing for the Auto Industry and Touch User Interfaces



In car manufacturing and beyond, membrane switches and capacitive systems, such as plastic touch panels, are vital to controls used for electronic functions. With this in mind, Marabu offers solvent-based and UV-curable ink lines for all commonly used films. *Ultra Switch* UVSW dries rapidly by means of UV curing, and is formulated to avoid clogging mesh screens. The ink film is also highly elastic and individual layers feature excellent adhesion. The solvent-based *Mara® Switch* MSW range is ideal for front panels and membrane switches, high-quality touch user interfaces for industrial systems, and for diverse controls, such as black and white panels. In this context, the non-conductive MSW ink system offers exceptional coverage, and high resistance to adhesives and moisture.

Safety for Sensitive Products



Sensitive products, such as toys, baby items and medical supplies, are associated with heightened safety requirements. The manufacturer must guarantee that neither substrate nor ink pose a health hazard to the user or consumer. In addition to the existing solvent-based pad printing inks, *Tampa® Tex* TPX and *Tampa® Plus* TPL, Marabu has now introduced a new water-based system. These innovative and eco-friendly inks feature the *Maqua® Coat* MAF base shades, plus *Maqua® Color* MAC concentrates. The inks dry very quickly to leave a high-quality silk-matte finish that is highly scratch-resistant.

Input Systems – Screen Meets Digital

Marabu has developed a solution that combines the strengths of screen and digital technologies for the effective printing of input systems (plastic panels). There is rising demand from leading manufacturers of input systems for applications in plant, general and electrical engineering, in medical technology, and for building control systems. The second surface of the polycarbonate (PC) or acrylic (PMMA) plastic panels are decorated by means of the digital method. The UV-curable *Ultra Jet* ink lines developed for plastic substrates are the ideal products for this approach. Digital technology supports customization and greatly reduces the individual number

of steps in the production process. Fewer screens are required, and the printer set-up is far quicker, both are cutting costs. The advantages of screen printing are harnessed for the blocking layer. This reliably produces the required colour density and quality. All in all, the marriage of screen and digital is a very happy one, leading to outstanding results in terms of production speed, cost effectiveness and quality.

Liquid Coatings for an Elegant Look-and-Feel



Mara® *Shield* liquid coatings can be employed to prime, finish and protect high-quality digital prints on plastics by means of roller coating. Mara® *Shield* UV FXG/FXM are ideal for flexible plastics, such as films (self-adhesive products, PVC, etc.). UV FXG produces a glossy coating, while UV FXM offers a matte alternative. Mara® *Shield* UV RG and UV RM are available for rigid substrates, such as polystyrene, ABS, rigid PVC, polycarbonate and PETG. Roller coating enables furniture and interior signage (including directionals and advertising) to be given an eye-catching, elegant look-and-feel.

Water-Based Inks for Inkjet Printing on Plastic Substrates in Industrial Scenarios

The latest water-based inkjet technologies and Marabu's purpose-developed Maqua® *Jet* ink lines represent a highly eco-friendly alternative to UV-curable. As the technology leader in water-based products for this segment, Marabu currently offers inkjet products that are specially engineered for plastics such as ABS and polystyrene, and for flexible materials such as PET, OPP and polyethylene films. They combine a number of advantages: they produce a flexible ink film and adhere to a large range of substrates – and also possess excellent mechanical resistance. Marabu partners with its customers to develop solutions to specific needs, with a particular emphasis on water-based projects where biocompatibility is a high priority.

One-Stop Solution: Equipment + Ink + Services



Marabu is Inca's official distributor for Spyder Xi systems in European markets. The Spyder Xi is an excellent UV printer for industrial applications. In conjunction with Marabu's UV-curable *Ultra Jet* inks for flexible and rigid substrates, this printer can be employed to print a huge variety of items, including containers, touch user interfaces and films. As a result, Marabu is able to offer its industrial customers end-to-end solutions, comprising inks, printers and services, including expert advice on process technologies – a strategy that ensures high-availability, high-quality production processes.

Marabu GmbH & Co. KG



Marabu is a leading global manufacturer of liquid coatings and screen, digital, and pad inks with headquarters near Stuttgart, Germany. Marabu's track record of innovation stretches back to 1859, featuring many industry-first solutions for both industrial applications and graphic design. With its 14 subsidiaries and exclusive distribution partners, Marabu offers high-quality products and customer-specific services in more than 80 countries. Exceptional technical support, hands-on customer training, and environmental protection are core elements of its corporate philosophy. Sustainable business practices are also key to Marabu's vision. These have been implemented through a number of initiatives, with concrete

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results – and the company is committed to maintaining this course of action in future. Marabu has been certified to ISO 9001 since 1995 and to ISO 14001 since 2003.

