

## Marabu at InPrint – Made-to-Measure Printing Inks for Industrial Applications

Marabu offers unparalleled expertise in integrating screen, pad, and digital printing into complex production processes – making the ink manufacturer the perfect development partner for industrial applications.



**Tamm, 18 February 2014** –The InPrint trade show in Hanover is the first event of its kind to focus exclusively on printing technology for industrial applications. Thanks to years of experience in manufacturing printing inks, Marabu has gathered extensive expertise in developing made-to-measure solutions in this space. From functional and decorative liquid coatings to UV-curable, solvent- and water-based inks, the products displayed at the Marabu booth (hall 21, stand C22) give visitors an insight into the versatility and respective benefits of screen, pad, and digital printing – beyond conventional graphic applications.

### Industrial printing – Tailored solutions for manufacturing processes

In contrast to graphic applications, industrial printing is performed during manufacturing – that is, it forms a stage within the process. This type of printing presents unique challenges in terms of the huge variety and complexity of the forms, substrates and surface finishes involved. Thanks to a broad portfolio and in-depth expertise, Marabu can create tailored solutions. Whether printing on metal, plastics, textiles, glass, ceramics, wood or other materials, Marabu's inks for industrial scenarios are developed in line with a clearly defined, customer-specific requirements profile. This takes into account the properties of the substrate, the type of application, and the qualities of the finished printed product. It is possible to control the ink's characteristics right from the start, for example resistance to chemicals and mechanical strain, light fastness, opacity, gloss, colour brilliance and odour – in addition to its compatibility with downstream processes such as bending, machining, welding, or moulding. The result is a solution designed to work perfectly with the printing system, giving customers an edge over the competition. As a development partner, Marabu can identify new printing options and highlight innovative solutions for manufacturing. Plus, it can reengineer existing printing processes to maximise production efficiency.



### Where form meets function –

#### Automotive applications and membrane switches

When it comes to automotive applications, the expectations placed on the design of individual components are high – and so are the quality and safety requirements. Inks and printing processes must be up to the challenge. Screen printing is ideal for detailed dashboard components such as speedometers, switches, and other controls. Maramold MPC is particularly suitable for plastic elements produced using in-mould technology, as it offers exceptionally good adhesion to injection-moulded materials and high resistance to mechanical strain. And using Marabu's pad printing inks Tampaflex TPF, Tampastar TPR, Tampapur TPU, and Tampapol TPY, it is possible to create tailor-made solutions for speedometer needles, display elements, and engine covers.

Membrane switches and keyboards – an integral part of many electronic control units – also place specific requirements on the printing process. Marabu offers solvent-based or UV-curable ink systems for all common makes of film. Ultraswitch UVSW, for example, cures rapidly and does not

clog the mesh screen. What's more, the ink film manages to combine incredible elasticity with excellent adhesion between the individual layers.

### Printing on packaging – High-quality, efficient, tailor-made

Marabu's screen and pad printing inks can be used to create unique designs on packaging of all shapes and sizes. For printing on PET bottle closures, pad printing ink TampaRotaSpeed TPRS or the halogen-free TPHF deliver efficient, cost-effective results for rotary systems. High adhesion and rapid drying mean seamless production processes and finished products that are scratch-resistant, even when packaged in bulk.

Inkjet printing directly onto PET or glass bottles opens the door to completely new possibilities in packaging designs. Depending on system configuration, it is possible to complete smaller custom jobs or



large-volume production runs at very high speeds. Generally, the UV-curable inkjet ink must meet stringent criteria. When printing on PET bottles, the ink film must adhere well to the pre-treated substrate yet be easy to remove during recycling. Moreover, the ink must be low-migration and deliver particularly high coverage. When printing directly onto glass bottles, a number of factors are key: the ink must be resistant to scratching, to packaging contents such as high-percentage alcohol or perfume, and, in many cases, to the heat generated by pasteurisation processes.

When printing on glass, it is vital that the inks used are designed specifically for the task. In-depth knowledge of substrates and pre-treatment is a must. Offering end-to-end solutions including primer, ink and protective coatings, Marabu is the partner of choice for this challenging application.

### Safety and durability – Technical markings

Technical markings on audio, electrical, and household products must be resilient in the face of heat, exposure to chemicals and general wear and tear. Marabu's exceptionally durable screen and pad printing inks deliver on all counts – and integrating them into production processes couldn't be easier. With Tampacure TPC, Tampastar TPR, and Tampapur TPU, intricate details and complex colour effects can be achieved on substrates as diverse as ABS, polyamide, POM, varnished surfaces or metals. For applications where tactile quality and high coverage are of the essence, Marabu's solvent-based or UV-curable screen printing inks stand out from the crowd. Moreover, when printing on medical devices, inks must comply with standards such as United States Pharmacopeia Testing – Biological Reactivity Testing in Vivo, Plastic Class VI (USP Class VI). Plus, they must be durable enough to withstand sterilisation products and processes. In addition, it must be ensured that no ink ingredients make their way into the human body. Marabu's pad printing solutions meet these requirements and are perfect not only for medical products such as syringes but also for marking or decorating glasses or hearing aids.



### Providing support and enhancing performance – Functional inks and coatings

Functional inks are used for a host of applications – ranging from fluorine acid etch-resistant coatings for solar technology, to glow-in-the-dark inks with extra-long glow time, to primers for substrates with very poor surface properties. For screen, pad and digital printing, Marabu offers a range of these inks in multiple shades, which perform specific functions or enhance the per-

formance of certain materials. They can be injected, sprayed, or applied using roller coating technology.

### Digital printing onto textiles and decorative printing for interiors

Digital printing for industrial applications is absolutely on the rise. Digital printing ensures fully reproducible results and makes it possible to frequently switch designs from project to project, without the need for costly and time-consuming machine changeover. Whether printing on metal, glass, textile, wood, plastic, or melamine, Marabu offers and develops customized and perfectly matched inkjet solutions – for example in the field of decorative surface finishing. Applied as primer, finishing and protection, Marashield liquid coatings are the excellent choice for lending a unique look and feel to decorative glass splash-back panels for kitchens. Further possibilities for inkjet inks include photo-realistic prints on windows or glass countertops. Plus, digital printing with the UV-curable UltraJet ink series can be used to produce a high-end wood-look effect for furniture, doors, floors, or panels.

For textiles, digital printing opens the door to new, more cost-efficient design options for a wide range of fabrics, whatever the length of the material roll being used. With the TexaJet water-based sublimation ink, Marabu offers highly flexible solutions for transfer, hybrid, and direct printing. Another addition to the portfolio is a new ink package based on disperse dyes, ideally suited to inkjet printing directly onto polyester. It includes specific formulations for industrial print heads from Kyocera, Seiko, and Ricoh. Possible areas of application include flags, umbrellas, home textiles, and apparel.

You are welcome to visit our Marabu expert team at InPrint at Hall 21, stand C22.  
We are looking forward to see you soon.

For further information, please visit our website [www.marabu-inks.com](http://www.marabu-inks.com).

### Marabu GmbH & Co. KG



Marabu is a leading global manufacturer of screen, digital, and pad inks. The company is headquartered near Stuttgart, southern Germany – a region renowned for its pioneering technology and engineering prowess. Marabu's track record of innovation stretches back over more than 60 years, featuring many industry-first solutions for both industrial applications and graphic design. With its subsidiaries and exclusive distribution partners, Marabu offers high-quality products and customer-specific services in more than 80 countries. Exceptional technical support and hands-on customer training are core elements of its corporate philosophy. Sustainable business practices are also key to Marabu's vision – and have been implemented through a number of initiatives, with concrete 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 2013.