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PAD PRINTING INKS











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Marabu Printing Inks – Expertise, Quality and Productivity

At Marabu, we have been brightening the world around us for years. Since our foundation in 1859, we have been creating innovative inks for a wide range of applications.

Marabu is a leading global manufacturer of screen, digital, and pad printing inks, and of liquid coatings. We have experience in developing outstanding pad printing inks for industrial and graphic applications. And we work day in, day out to make sure our name and brand are synonymous with quality.

The company is headquartered near Stuttgart, in southern Germany – a region renowned for its pioneering technology and engineering prowess. With 15 subsidiaries and exclusive distribution partners, Marabu offers high-quality products and customer-specific services in more than 90 countries. We work hand-in-hand with our customers to identify opportunities and to create tailor-made solutions – with a focus on raising productivity, lowering costs, and improving process efficiency. To achieve these goals, Marabu offers expert advice and assistance – including on-site service and support, and hands-on training.

Marabu Pad Printing Inks - Continuously Evolved and Improved

Pad printing is typically used in scenarios where other print methods struggle to deliver the desired results: precise, delicate details on raised or sunken surfaces. What's more, pad printing is suitable for an enormous variety of materials, including glass, plastics, metal, ceramics, textiles, and wood – making it extremely versatile.

Marabu addresses customer imperatives with ink solutions that are geared exactly to market-leading equipment and challenging substrates.

Read on to discover more about our broad pad printing product portfolio.

4	Our Products and Services
	0 0. 1.0 0.0 0.0 0.110.
6	Babies and Toddlers
8	Toys
10	Glass
12	Textiles
14	Sporting Goods
15	Component Markings
16	Medical Products
18	Automotive
20	Consumer Electronics
22	Packaging and Bottle Closures
23	Promotional Gifts and Office Products
24	Colour Management
25	Research and Development
26	Services

www.marabu.com www.marabu-inks.com



What Makes Marabu a Trusted Partner?

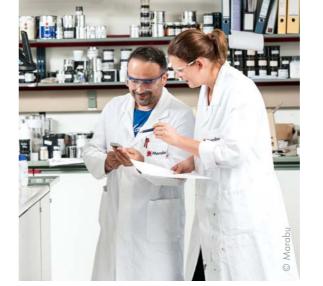
At Marabu, we understand that it is not enough just to offer outstanding products – our customers can expect much more than that. They can expect a genuine partner: someone who is ready to listen, who has the right skills, and the right attitude. We pull out all the stops to find the best solution available for each and every challenge.

We work closely with our customers to develop tailor-made inks for their applications, and we have always defined quality in terms of customer benefit. As the technology leader in pad printing inks, our experience guarantees exceptionally reliable results every time.

Certified Safety

At Marabu, we believe in maximising the safety of our products – and minimising their impact on the environment. We employ substitutes for harmful or hazardous substances in our inks, wherever feasible. Furthermore, we are committed to ensuring that our entire portfolio is compliant with the EuPIA exclusion list for printing inks and related products.

Our product safety department ensures all our inks are up to the mark - not only in terms of legal imperatives, but also our customers' high expectations and the benchmarks we set for ourselves. As a result, we can guarantee first-rate products that comply with applicable standards.



Proven Development Skills, In-Depth Knowledge of Applications

Marabu thinks ahead – to deliver maximum safety for consumers, halogen-free inks for food packaging, and much more. Our innovations are based on in-depth, systematic research and development work. This results in products which are fully in line with customers' real-world needs. A pioneering example: the creation of water-based pad-printing inks for sensitive products, such as children's toys.

Environmental Protection and Product Safety

Marabu has always invested in the future of people and our planet. We have underlined this commitment by creating a dedicated department for product and environmental safety. This team has, for instance, led our shift from disposing of waste to recycling it. Furthermore, we have continuously lowered our use of hazardous substances. Overall, our environmental standards are amongst the highest in the industry.





Productivity and Efficiency

At Marabu, we know that machine downtime means lost productivity and lost profits. Our printing inks and experimental support staff help customers avoid disruptions to their processes. Benefits include highly reproducible results and more energy-efficient drying.

Quality and Testing

We understand that rigorous quality control is essential to providing consistently reliable products and services. It is a key element of our core business. We carry it through from start to finish: from vetting our raw materials and suppliers to running durability tests, to seeking certification through external organisations.

Marabu is certified to DIN EN ISO 9001 and DIN EN 14001.









Extra-Safe Inks for Items Held in Hands and Placed in Mouths

Toys, baby products, and medical accessories are examples of items with heightened product safety needs. It is vital to ensure the substrate itself and the printing inks are free from substances that could be harmful.

Marabu's pioneering Tampa® Tex TPX system is the perfect answer to this challenge, passing all the tests required in this market segment with regard to health and safety, resistance to washing, and sterilisation. Its carefully selected high-purity ingredients comply with the baby-product industry's strict specifications for printing on bottles and dummies (pacifiers).

In addition, the high-quality ink is ideal for diverse decorations and markings, and displays good adhesion and scratch resistance on substrates such as polyamide (PA) and polypropylene (PP).







- One-component baking ink for glass and metal (screen and pad printing)
- For sensitive applications
- Compliant with many health and safety standards, e. g. DIN EN 71/3
- Made without the use of Bisphenol A
- Excellent adhesion/chemical resistance
- Brilliant and high-gloss colour shades

Tampa® Tex TPX

- Two-component ink suitable for a wide range of substrates
- Successfully tested for toys, baby products and medical accessories
- Compliant with health and safety standards, e.g. DIN EN 71/3
- Very good adhesion on various materials
- Good workability for reliable processes













Brilliant Colours, Strong Adhesion, Free from Harmful Substances

Children's toys, from wooden figures to model cars, must be colourful, appealing – and durable. And that requires an ink that offers outstanding chemical and mechanical resistance. Pad printing is the ideal method in these scenarios: this flexible process creates brilliant, long-lasting results on practically any substrate. Marabu's products are ideal for this task, brightening the lives of children across the world.

Marabu has developed pad printing inks especially for the challenges of decorating toys. They are free of heavy metals in line with EN 71, part 3, and meet manufacturers' specifications and statutory requirements. Marabu gladly complies with these imperatives, as it holds itself to the highest of standards in all areas – in product safety and beyond.

Additionally, as a manufacturer of high-quality inks, Marabu is very much aware of its responsibility to people and to the planet. It therefore makes every effort to ensure its portfolio is exceptionally safe to make, and to use.



Tampa® Tex TPX was originally conceived as an ink for printing on textiles, for example for washing instructions on T-shirts. Since then, experience has shown that Tampa® Tex TPX also achieves excellent adhesion on many other materials, such PP, PA, PU, some TPE and EVA substrates, plus neoprene and imitation leather. It is also suitable for use in screen printing. Tampa® Tex TPX is exclusively available

as a two-component ink that, when combined with the corresponding hardener, can be tailored to the task at hand.





- One-component, water-based ink system
- Virtually odourless
- Compliant with many health and safety standards, e. g. DIN EN 71/3
- Lowest PAH and VOC values
- Made without the use of BPA/BPS
- For durable and long-lasting toy surfaces

Tampa® Tex TPX

- Two-component ink suitable for a wide range of wwwwsubstrates
- Successfully tested for diverse toy applications
- Compliant with many health and safety standards, e.g. DIN EN 71/3
- Very good adhesion on various materials

Tampa® RotaSpeed TPHF

- Halogen-free
- Viscosity and rheological properties are tailored to the needs of rotary pointing.
- Extremely resistant to water and scratches
- Excellent opacity, even on dark backgrounds
- Rapid drying, highly scuff-resistant

Tampa® Plus TPL

- For high-speed printing systems
- Suitable for a wide variety of applications
- One- or two-component ink
- Lowest PAH values, free of aromatic solvents
- Resistant to alcohol and petrol
- Very good printability















The Perfect Combination: Scratch Resistance, Great Adhesion, Brilliant Colours

New designs for fragrance bottles, glass caps and lids, and bathroom ceramics are created all the time – and inks must evolve accordingly.

Marabu is a specialist for organic inks for glass. These products are an excellent, energy-saving alternative to baking inks. They are solvent-based, free from heavy metals, and offer outstanding adhesion as well as scratch resistance. There is a wide choice of colours, and a range of special effects including metallic – furthermore they offer superior resistance to dishwashing.

Plus organic inks offer a further key advantage: it is far easier to mix custom colours, as the final tone becomes visible immediately when printed.

State-Of-The-Art Ink System

Mara® Tech MGO is based on highly advanced raw materials custom-developed for screen and pad printing, and is especially suited to decorate curved glass. As a one-component baking ink, it offers outstanding durability, less error potential, and user-friendly handling.



Mara® Tech MGO

- One-component baking ink for glass and metal
- Highly resistant against a wide range of cleaners, descaling agents, and foodstuffs
- Brilliant and high-gloss colour shades
- For sensitive applications

Tampa® Glass TPGL

- Glossy, fast-drying, two-component ink for glass and many other substrates
- Very good flow, easy to process
- Dishwasher-safe, very high mechanical and chemical resistance, and very high resistance to packaging contents

Mara® Glass MGHT

- One-component ink (screen and pad printing) for glass and metal with no pot life
- Resistant to temperatures > 300 °C
- Smooth, homogenous ink film surface, very crisp edges













High-Quality Results, Cost-Effective, Free from Harmful Substances

Increasingly, the brand name, size and washing w instructions are simply printed on the inside of clothes. And this is where pad printing comes into its own. It provides great results – and lowers costs by minimising consumption of resources and materials.

In this context, ink adhesion is particularly important – as fabric is elastic by nature and printed markings or texts must stretch with the garment. Plus, the design must be capable of withstanding multiple wash cycles. In both respects, pad printing is miles ahead of conventional heat-transfer labels.

Pad printing offers a number of benefits for the textile industry: it eliminates the need for additional tag material, and saves time and effort compared to sewn-on or heat-transfer labels. And that can only mean one thing: significant cost savings.

For printing, Marabu offers a range of inks with very good adhesion. These products have been tested for harmful substances and certified to the rigorous STANDARD 100 by OEKO-TEX® – meaning they not only fulfil legal requirements but also the high expectations of manufacturers.

Excellent Adhesion on Shoe Soles

Tampa® Tex TPX also displays good adhesion and scratch resistance on other materials, such as polyester and polypropylene.



Ahead of its Time

Pad printing is a highly efficient, cost-effective process that conserves resources



Tampa® Tex TPX

- Two-component ink for natural or synthetic fabrics
- Very good adhesion and wash resistance
- Suitable as a substitute for sewn-in and heat-transfer labels
- Flexible ink film for complete comfort

Tampa® Sport TPSP

- Two-component ink for natural and synthetic fabrics, EVA and boost
- Highly flexible ink film, no cracking
- Good opacity
- Very good adhesion and wash resistance











Peak Performance from Both Sports Equipment and Inks

Sport demands a lot from players, from their equipment, and from the ink used to print on it.

When it comes to sports equipment, pad printing inks must tick a number of boxes: they must be glossy as well as highly opaque, and display chemical and mechanical resistance. In addition, they should offer a broad choice of colours and special effects, including metallic or glow-in-the-dark.

They must be suitable for a huge range of designs and decorations, and comply with detailed manufacturers' specifications. Marabu inks deliver on all accounts.

Truly Versatile

Marabu pad printing inks are perfect for high-volume manufacturing processes

- but are equally suited to producing extremely high-quality one-off results.

Making a Mark on Industrial Products

Symbols, measurement scales, and other markings on electrical switches, nameplates, and dials are important sources of information and guidance.

Pad printing is ideal for these applications. It creates highly durable results, can be easily integrated into production lines – and it is suitable for popular substrates such as ABS, polyamide, POM, varnished surfaces, and metals.



From plastics to metals – when it comes to printing on technical products, Marabu inks offer maximum durability on a wide range of substrates.



Tampa® Star TPR

- Suitable for a wide variety of applications
- Resistant to petrol and alcohol
- One- or two-component ink
- For products subject to high mechanical stress
- Fast curing

Tampa® Pur TPU

- High gloss
- Fast curing two-component ink
- Very high chemical and mechanical resistance
- Excellent adhesion on challenging materials

Tampa® Tex TPX

- Two-component ink suitable for a wide range of substrates
- Successfully tested for diverse sporting goods applications
- Compliant with DIN EN 71/3
- Good adhesion and scratch resistance

Tampa® Cure TPC

- UV-curable
- Excellent mechanical and chemical resistance
- One- or two-component ink
- Suitable for a wide variety of applications

Tampa® Tech TPT

- High chemical resistance
- High gloss
- Fast-curing two-component ink
- Long pot life
- Universal use

Tampa® Pur TPU

- High gloss
- Very high chemical and mechanical resistance
- Fast curing two-component ink
- Excellent adhesion on challenging materials





COMPONENT

MARKINGS













Ink Systems that Comply with Stringent Standards

Markings for medical products must be completely safe for both patients and staff. Inks must fulfil strict regulations and be sterilisation-proof. Moreover, ink ingredients must not leach and enter the human body.

Medical products also include glasses and hearing aids which can be marked or decorated by pad printing.

The Tampa® Star TPR, Tampa® Pur TPU and Mara® Prop PP inks are ideal for these applications. And they have been employed successfully by leading manufacturers of products for this demanding environment for a number of years. All three lines of inks have proven that they can fulfil the stringent demands of this special sector under real-life conditions.



Tampa® Star TPR

- Suitable for a wide variety of applications
- Resistant to petrol and alcohol
- One- or two-component ink
- For products subject to high mechanical stress
- Fast curing

Tampa® Pur TPU

- High gloss
- Very high chemical and mechanical resistance
- Fast curing two-component ink
- Excellent adhesion on challenging materials

Mara® Prop PP

- Satin gloss
- For untreated polypropylene
- One-component ink
- Very flexible and fast drying













Pole Position for Symbols and Information

When buying a car, customers scrutinise every last detail – particularly when it comes to the look-and-feel. And as consumers become more discerning and quality and safety regulations become stricter, pad printing inks and processes must keep pace.

Printing inks for automotive industry applications face a tall order: they must be resistant to temperature and weather extremes, highly opaque, resistant to perspiration, abrasion, and cleaning agents, and adhere well to a variety of materials. Marabu ink systems offer effective answers to all the specific imperatives of the automotive industry.

A further challenge is producing backlit controls and speedometer needles – as these must fall within very narrow colour tolerances (i.e. the defined hue has to be consistent). Furthermore, the thickness of the pad-printed layer must conform exactly to the manufacturer's specifications to achieve the required interaction between backlight and ink. Marabu's pad printing products were developed with these needs in mind, and ensure outstanding results.



Tampa® Pur TPU

- High gloss
- Very high chemical and mechanical resistance
- Solvent-based twocomponent ink
- Ideal for challenging substrates

Tampa® Pol TPY

- Glossy
- High chemical resistance
- Suitable for a wide variety of applications
- Fast curing one- or two-component ink
- Good opacity

Tampa® Star TPR

- Suitable for a wide variety of applications
- Resistant to petrol and alcohol
- One- or two-component ink
- For products subject to high mechanical stress
- Fast curing

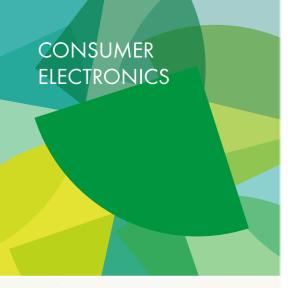


High-Quality Look-And-Feel

Marabu inks are tailor-made for printing on speedometer needles, control buttons, display elements, and engine covers.













High-Quality, Highly Resilient Decorative Prints

Printed designs on audio and electronic devices must withstand chemical, thermal, and mechanical stresses on a day-to-day basis.

Consumer electronics are often decorated and marked with high-quality gold, silver, or other special-effects. The substrates are very diverse, and include ABS, polystyrene, polycarbonate, acrylic glass, traditional glass, and polyamide.

Pad printing is ideal for these challenges. Perfect for creating high-definition, exceptionally durable prints, our inks offer a broad choice of colours and special effects – and are suitable for use on all manner of materials and shapes.



Incredibly resilient, Marabu inks can be used to print complex designs on a broad array of devices.



Tampa® Cure TPC

- UV-curable
- Excellent mechanical and chemical resistance
- One- or two-component ink
- Suitable for a wide variety of applications

Tampa® Pol TPY

- High chemical resistance
- Suitable for a wide variety of applications
- One- or two-component ink
- Good opacity

Tampa® Glass TPGL

- Glossy, fast-drying two-component ink for glass and many other substrates
- Very good flow, easy to process
- Very high mechanical and chemical resistance, resistance to packaged contents, dishwasher-safe













Excellent Results – High-Speed Processes

First impressions are all-important – and product packaging is no exception. Pad printing inks from Marabu ensure attractive designs with excellent prints, creating a look-and-feel that will appeal to consumers from the first moment.

Manufacturers of beauty products and household goods must decorate and mark containers, bottle closures, and smaller items like cream jars and lipstick cases, as well as moulded surfaces. For widely used substrates such as pre-treated polyethylene and polypropylene, polystyrene, or glass, the ink must ensure particularly high opacity and resistance to packaged contents.

Pad printing is ideal for this kind of three-dimensional packaging. It can be used to create detailed designs, a variety of brilliant colours, and produces highly durable results. Marabu inks deliver maximum opacity, come in countless bright and beautiful shades, and are suitable for diverse substrates. Plus, our range includes special inks that, as tests have shown, guarantee very low migration.

Maximum Cost-Efficiency

Pad printing allows you to print hundreds of thousands of bottle closures every hour.

A Unique Range of Colours for Many Designs and Decorations

Advertising is colourful, brash, and can be found everywhere – including on promotional gifts. The huge array of substrates found with these items place substantial demands on ink in terms of adhesion, durability, and colour range. In response to these challenges, Marabu has created a portfolio of products that are very easy to process, and suitable for this broad variety of applications.

Printed designs on office equipment such as holepunchers, staplers, and pens must look attractive – but they must also be precise, legible, and long-lasting. And because substrates can range from ABS, SAN,

and polystyrene to aluminium, steel, wood, and varnished surfaces, the inks used must be particularly versatile.



PROMOTIONAL

OFFICE PRODUCTS

GIFTS AND



Tampa® RotaSpeed TPHF

- Very fast-drying ink system for rotary pad printing
- Free of halogens and aromatic hydrocarbons
- One- or two-component ink

Mara® Prop PP

- Satin gloss
- One-component ink
- For untreated polypropylene
- Very flexible and fast drying

Tampa® Plus TPL

- For high-speed printing systems
- Suitable for a wide variety of applications
- One- or two-component ink
- Lowest PAH values, free of aromatic solvents
- Resistant to alcohol and petrol
- Very good printability

Tampa® Star TPR

- Suitable for a wide variety of applications
- Resistant to petrol and alcohol
- Very fast curing
- One- or two-component ink
- Good opacity

Tampa® Pol TPY

- High chemical resistance
- Suitable for a wide variety of applications
- One- or two-component ink
- Good opacity















For Precise Reproducibility Every Time

Graphic and product designers take colour selection very seriously – and have very clear-cut ideas about how the finished results should look. In order to guarantee the best quality and maximum reproducibility, Marabu offers tried-and-tested tools specially designed to meet these high standards.

Colour matching made easy. Finding precise colour matches has never been so easy – thanks to our high-performance, user-friendly "Marabu-ColorManager MCM" software. A comprehensive database includes colour formulas referencing PANTONE®, HKS® and RAL matching systems for screen and pad printing. The "Marabu-ColorFormulator MCF", on the other hand, works completely independently of colour reference systems: this database is linked to a spectrophotometer, allowing you to generate precise reproductions of your colour samples and ensure optimum printing results.

We also offer automatic ink dispensing systems: "Marabu-ColorDispensers". Simple, user-friendly operation and maintenance makes these systems stand out from the crowd, as they allow you to produce a precise colour mix at the touch of a button.

Proven Pioneers

Research and development is the systematic endeavour to gain new insights. And that is precisely what Marabu does. Our goal is to achieve continuous innovation, creating new and even better solutions to our customers' specific challenges. And we can draw on the expertise gained through more than 160 years of hands-on experience in the development of inks.

High quality begins with the careful selection of our suppliers. We only use the purest raw materials. We leave nothing to chance. And we build lasting, reliable partnerships that ensure we receive the goods that are needed as the basis for our exceptional inks.

Our printing inks are the result of multiple process stages, supported by lab chemists, engineers and product managers throughout. And this is followed by rigorous testing, to demonstrate the ink's ability to withstand the harsh reality of real-world scenarios.

Dispersion

Our state-of-the-art production equipment from leading bead mill manufacturers delivers extremely finely dispersed pigments. This guarantees flawless results every time – for smooth, trouble-free printing processes.

Quality Control

Marabu inks offer exceptionally consistent quality across all batches and in line with precise specifications. For example, all printing inks are passed through a multiple filtration process, and feature exceptionally high sedimentation stability.

Fine-Tuning

Through a combination of multiple analytical methods and devices, we ensure that the physical and chemical properties of our inks are geared to the precise requirements of your applications.

Lightfastness and Weathering

Marabu tests long-term effects using simulated accelerated weathering according to DIN standards, as well as natural weathering under real-life conditions. Our extensive experience guarantees robust products that are ideal for outdoor applications.













Marabu pad printing inks guarantee outstanding productivity and cost-effectiveness. But Marabu is also about great services: one of our key strengths is our blend of product quality and expert advice. We have distribution partners and subsidiaries in practically all the world's markets. Together, they form a network that spans the globe – to provide reliable service and support, and tailor-made products that can be delivered promptly to wherever they are needed.

In other words, we are always close at hand, with the skills, assistance, and solutions in the language you need.

Regular training sessions, plus ongoing information exchange via our enterprise-wide knowledge network, keep our specialists up to speed with the latest products and technologies.

Moreover, our service professionals enjoy regular and direct interaction with experts from all our departments. This ensures we can react rapidly and effectively to customer imperatives – providing specialised products and made-to-measure solutions.

As a leading ink manufacturer we place great emphasis on providing basic and specialised information, particularly on new technologies and for specific application areas. Our advanced, fully-equipped Training Center offers seminars in English, and tailored training courses upon request.



- International service and support network of subsidiaries and carefully selected partners offering advice and assistance, wherever you are
- Experienced specialists have extensive knowledge of all our products and can advise you on the right solution for your specific needs

- Skilled professionals help you select the best solution in terms of technology and cost-effectiveness
- Our Training Center offers courses, seminars, and more tailored to selected markets or specific customer needs





- Our Print Center offers a testing service on original substrates in line with your needs - helping you find the ideal inks and integrating them into your production processes
- A five-minute phone call to our technical hotline can save hours of downtime

Our overriding priority is to meet our customers' service needs, delivering total satisfaction, and combining high-quality with cost-effectiveness. We achieve this goal through proven processes – and through the flexibility, dedication, and responsiveness of our employees.

