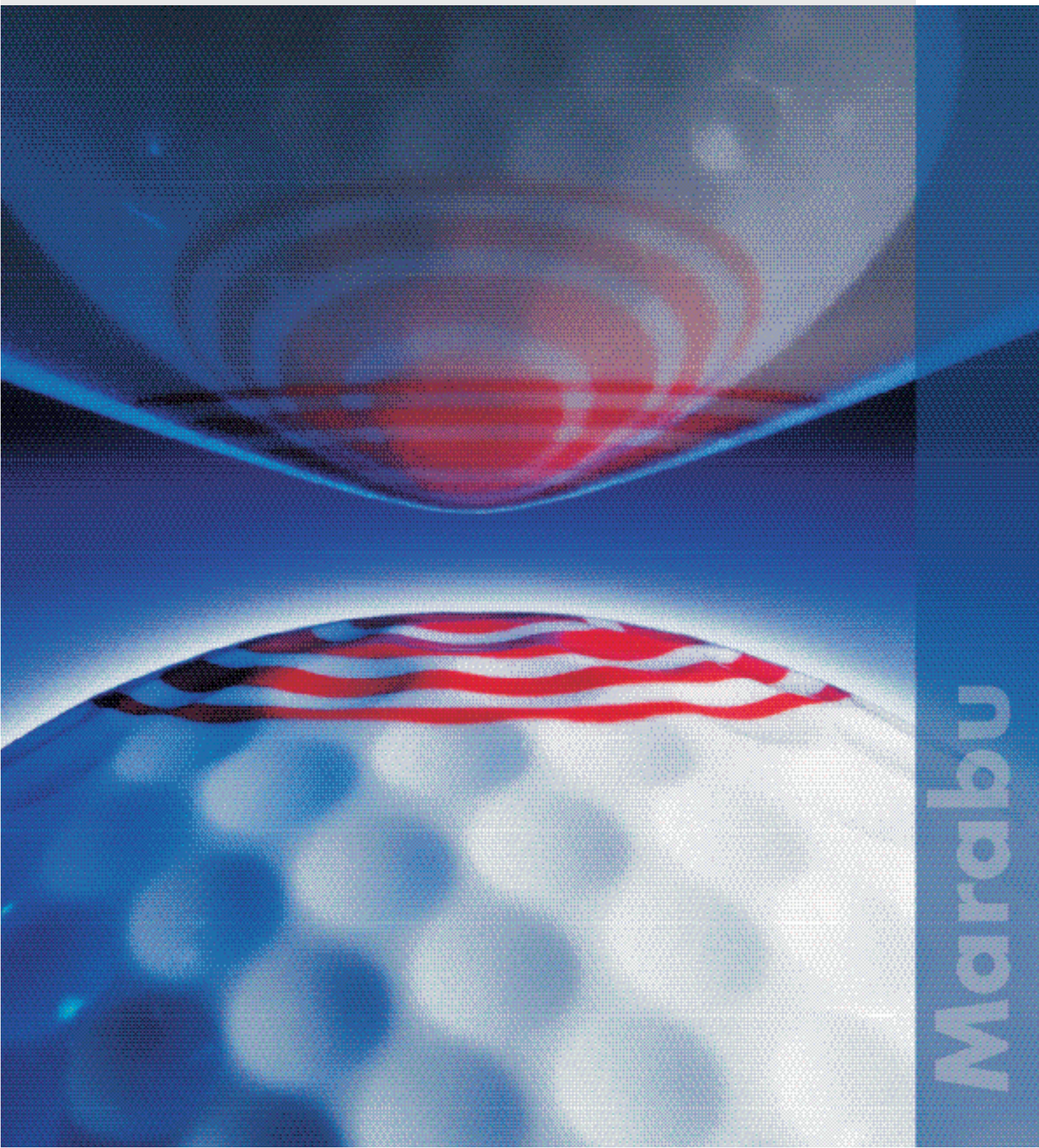


# Pad Printing Inks

Unique products for every requirement



Marabu





# Marabu – Competence in Colour

## Pad Printing – A universal process for a wide range of applications

Today, pad printing is used successfully both in the field of high-quality decoration, as well as marking and coding. Owing to the versatile use and development of this technology, pad printing has gained great importance and grown into a universally recognized decoration process.

With a wide product range, Marabu covers all fields of application and offers the right ink for each substrate.

## Marabu – Specialists for Printing Inks

“Competence in Colour” represents not only the result of many years of intensive work but also a permanent challenge to offer superior market-suitable products through innovation and continuous development.

## Marabu is certified through the Quality Management System ISO 9001 and ISO 14001

Quality and environmental protection are not only expected but part of our daily life, as well. Our certifications are understood as continuous processes leading to further improvements within the company thereby optimising our products and services.

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## Marabu – Technical Service Department

The Technical Service Department, AWETA, informs and supports through technical documentation, telephone advice, print tests, and ink recommendations, and last but not least through in-house visits and on-site tests carried out together with customers.

This service is offered worldwide.



As a pure service department, the main purpose of the AWETA is to provide technical support, day in, day out.

ISO-Certification according to DIN EN ISO 9001 and DIN EN ISO 14001

## Marabu Training Center

In a modern seminar facility with a professional seminar team, Marabu presents trend-setting directions for the transfer of an effective and application oriented know-how.

A comprehensive seminar programme is offered in theory and practice:

- advanced training and qualification of employees
- possibilities in pad printing
- presentation of state-of-the-art techniques



**Fields of Application** · The multitude of applications on the greatest variety of substrates also creates very special demands on the printing ink.



## Promotional items

“The Colourful World of Advertising” with Marabu. On all kinds of plastics for promotional items such as lighters, pens, and a lot more.

The more diversified the demands and substrate choices, the larger the ink choice in the Marabu range.

Criteria and demands to be met by the printing ink:

- a large field of application
- simple processing
- a large variety of shades

Our recommendation for a colourful and concise publicity:

**Tampastar TPR**  
**Tampaplus TPP**  
**Tampatech TPT**

## Toys

The toy industry, due to its highest demands, plays an important role on the market.

Decorations: colourful and versatile with attractive designs for children.

Demands: Adhesion to a broad range of substrates, ink systems free from heavy metals conforming to DIN EN 71, as well as best possible mechanical and chemical resistance for long durability.

Pad printing with Marabu meets all these requirements by offering

- a great variety of ink series and basic shades
- special effects

Success with these ideally suited inks:

**Tampaplus TPL**  
**Tampastar TPR**  
**Tampapur TPU**



## Office Equipment

When printing onto office equipment, not only functionality and durability but also design is of noticeable importance. Mostly, high-quality products for work places are concerned such as writing utensils, hole-punchers, casings for dispensers, and correction tapes, and many more.

Typical substrates are ABS, SAN, PS, aluminium, steel, as



well as glass, wood, and varnished surfaces – thus very different materials.

Strengths of Pad Printing:

- high resistances
- a great variety of shades

A business that certainly pays using these inks:

**Tampaplus TPL**  
**Tampastar TPR**  
**Tampapur TPU**

## Storage Media

For some time, we have known music and video cassettes and discs as typical storage media. Digital formats such as mini disc and various CD and DVD formats are now standard – a worldwide growing market.

Corporate identity, as well as the print and ink's quality level must meet highest standards in this demanding and versatile



market. Previously unknown requirements are now to be fulfilled, e.g. no impact on the disc information layer.

Marabu Pad Printing Inks offer:

- a great variety of shades
- special effects

Be fully up-to-date when printing onto storage media with:

**Tampaplus TPL**  
**Tampastar TPR**  
**Maraprop PP**

## Audio and Electrical Appliances

When decorating audio, as well as electrical and household appliances, high requirements for chemical stress resistance, elevated temperatures, and daily use will clearly predominate.

In this segment, high impact decoration is extremely important since special effects such as




gold and silver are very often required. Typical substrates are ABS, polystyrene, polycarbonate, acrylic, and polyamide, or pre-treated polyethylene, and polypropylene.

There's every reason for pad printing:

- printing of finest details
- high resistances
- a great variety of shades
- metallic effects

Electrifying success with these inks:

**Tampastar TPR**  
**Tampapol TPY**  
**Tampapur TPU**  
**Tampacure TPC** 



## Packaging Printing

Indicate what's inside on the outside. Direct printing onto packagings is particularly used in the cosmetic sector but also for many household articles.

For decorating smaller units such as cream boxes, lipsticks or moulded surfaces, pad printing is perfectly suited for unique shapes.



Typical substrates are pre-treated polyethylene and polypropylene as well as polystyrene or glass.

Most important requirements to the printing ink:

- product resistance
- high opacity

A good indication of success, your choosing, a Marabu Ink:

**Tampapol TPY**  
**Tampapur TPU**  
**Maraprop PP**

## Bottle Caps

The real revolution in the bottle cap industry began with a simple twist, the twist-off plastic closure.

From the beginning, this new system was predestined both for opaque, as well as brilliant colour shades.

Almost all bottle caps are made of polyethylene and polypro-



pylene. The printing speed can amount to several hundreds of thousands of caps per hour.

Pad printing manages everything you need:

- high opacity
- a great variety of shades

Cap your success with Marabu:

**Tampapol TPY**  
**Tampatech TPT**  
**Maraprop PP**



## Medical Products

When medical products are to be printed, the factor "harmless" is critical as some items are used in operating rooms.

Spectacles or hearing aids are further medical applications which are marked or decorated. These products must in any case be marked with identification codes or scales in pad printing.

Marabu Pad Printing Inks are:

- classified according to DIN EN 71, part 3
- resistant to sterilization

9 out of 10 printers choose:

**Tampastar TPR**  
**Tampapur TPU**  
**Glass Ink GL**  
**Maraprop PP**



## Sporting Goods

The field of sporting goods is so vast and individual that each project must be handled separately. General demands are high mechanical and chemical resistances and very often high opacity, gloss and a wide colour range offering different effects.

Decoration is often carried out with pad printing, as in most



## Technical Products

Technical pad printing includes the decoration and marking of those products which cannot clearly be assigned to a determined segment. This means, for example, printing onto electronic switches, identification plates, or automotive parts.



cases these objects are three-dimensional.

The most important advantages of pad printing:

- high mechanical and chemical stress resistance
- individual special effects

The top team of inks for the best printing results:

**Tampaplus TPL**  
**Tampastar TPR**  
**Tampatech TPT**  
**Tampapur TPU**

## Glass & Ceramics

Not all applications require baking ceramic inks. Our program includes heavy-metal-free, solvent-based ink systems offering very good product and abrasion resistance. A high level of dishwasher resistance can also be achieved.

Marabu Pad Printing Inks convince through:

- good adhesion and scratch resistance
- a great variety of shades and special effects

Inks with "crystal-clear" advantages:

**Glass Ink GL**  
**Tampapur TPU**  
**Tampatech TPT**

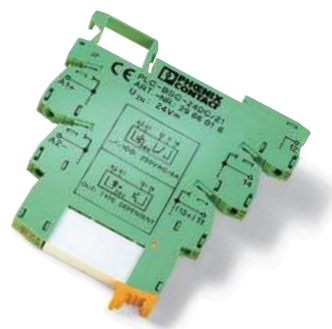
Typical substrates are especially ABS, polyamide, POM, painted surfaces, or metals.

Sound arguments for pad printing:

- high resistances
- possible integration into production lines

Precision performance in technical pad printing:

**Tampaplus TPL**  
**Tampastar TPR**  
**Tampatech TPT**  
**Tampapur TPU**  
**Tampacure TPC**



## Marabu Pad Printing Inks

A synonym for a broad product range and highest quality, especially developed to satisfy the demands of each individual task.

### One-component Inks

#### Tampastar TPR

- versatile use
- resistant to petrol and alcohol
- 1- or 2-component ink



The fast drying Tampastar TPR excels because of its universal use. To be printed onto polystyrene, ABS, acrylic glass, polyester, rigid PVC, thermosetting plastics, and varnished surfaces. Thanks to its high resistance, it is ideal for products which are subject to high mechanical stress and hand perspiration, or cleaning agents such as control buttons, camera housings, etc.

#### Tampaplus TPL

- for fast printing machines
- versatile use
- 1- or 2-component ink



Thanks to its very fast drying, this allrounder is ideally suited for high-quality decorations or marking of articles, especially if processed on fast running printing machines with closed cup systems. Versatile and easy to use. Suitable substrates are polystyrene, ABS, acrylic glass, polyester, rigid PVC, thermosetting plastics, and varnished surfaces.

#### Tampapol TPY

- good chemical resistance
- universal use
- 1- or 2-component ink



Tampapol TPY is mainly used for printing onto packaging and housings made of pre-treated polyethylene and

polypropylene, ABS, as well as rigid PVC. Being a two-component ink, it can also be used for thermosetting plastics, metals, and varnished surfaces. A remarkable property of Tampapol TPY is its good resistance to many chemicals and greases and thus the perfect suitability for decorating housing parts such as audio or electrical appliances, as well as bottle caps.

#### Tampaplus TPP

- good printability
- resistant to oil and grease
- 1- or 2-component ink



Tampaplus TPP can be used on ABS, SAN, polycarbonate, and rigid PVC. As a two-component ink, it can also be used on pre-treated polypropylene and polyethylene, metals, and varnished surfaces. Tampaplus TPP is, therefore, best suited for a great multiplicity of promotional items, as well as packaging printing.

#### Maraprop PP

- satin gloss
- for untreated polypropylene



Maraprop PP is mainly used for untreated and pre-treated polypropylene packaging materials such as Priplak and Akylux, as well as injection-moulded parts for printing onto promotional items and marking medical goods.

### Two-component Inks

#### Tampapur TPU

- high gloss
- very high chemical and mechanical resistance



Tampapur TPU is particularly suited for materials difficult to print onto such as pre-treated polyethylene and polypropylene, thermosetting plastics, metals, and varnished surfaces, as well as polyurethane, polyamide, melamine resins, powder-coated surfaces, and similar substrates. Under certain conditions, it can also be used for polyacetal.

#### Tampatech TPT

- high gloss
- high chemical and mechanical resistance
- extended pot life



Tampatech TPT can be universally used on ABS, pre-treated polyethylene and polypropylene, polyamide, thermosetting plastics, metals including thinly anodized aluminium, as well as on varnished and powder-coated surfaces. Under certain processing conditions, it is also suitable for polyacetal materials such as Hostaform C or Delrin.

#### Glass Ink GL

- satin gloss
- dishwasher-proof



Mainly used on glass and ceramics, e.g. in the cosmetics industry and on promotional items. Suitable for many

metals such as steel, aluminium, and chromeplated parts and varnished surfaces.

### UV-curable Pad Printing Ink

#### Tampacure TPC

- UV-curable
- high resistances
- versatile use



The UV-curable, high-glossy Tampacure TPC is best suited for a high-resistant marking of technical products and housings. To be used on ABS, pre-treated polyethylene and polypropylene, as well as varnished surfaces. The fast UV-curing process is of particular importance when a further immediate handling of the printed parts becomes necessary.

#### Further information

Please refer to the Technical Data Sheets of the corresponding ink type or visit our website under [www.marabu-inks.com](http://www.marabu-inks.com)

# Marabu Ink Systems and Colorimetry



## System **Tampacolor**

Ideal colour range for pad printing

920	Lemon
922	Light Yellow
924	Medium Yellow
926	Orange
930	Vermilion
932	Scarlet Red
934	Carmine Red
936	Magenta
950	Violet
952	Ultramarine Blue
954	Medium Blue
956	Brilliant Blue
960	Blue Green
962	Grass Green
940	Brown
980	Black
970	White

For the design of printing motifs, existing colour systems like PANTONE®, HKS®, RAL® are used. Especially in pad printing, it is extremely difficult to reproduce the original on versatile and mostly coloured substrates.

In order to be able to combine the demand both for opaque and brilliant shades in a best possible and economical way, Marabu has developed a colour system for pad printing, Tampacolor.

All basic shades of System Tampacolor correspond to DIN EN 71 specification, part 3, and can thus be used for printing onto toys.

### Additional Specialty Products

- high-opaque colour shades
- opaque white
- press-ready bronzes
- high-gloss bronzes
- 4-Colour process shades

## Marabu- ColorManager MCM Ink Management Software The versatile formula management system

Achieving colour match accuracy by using a low-cost, efficient, and user-friendly format has never been easier than with the Marabu-ColorManager. The comprehensive data base provides formulas for PANTONE®, HKS®, and RAL® ink series.

You can quite simply

- recall formulas immediately and calculate it for any quantity
- calculate the ink consumption for the respective print job
- save and store your own formulas
- weigh each ingredient directly as shown on the monitor - via a connected scale



## Marabu- ColorFormulator MCF The system for colour formula and quality control

This ideal colour matching system allows to copy and calculate any colour matches you need. MCF works either with a portable or a stationary spectrophotometer in connection with the corresponding software and data base especially designed for screen and pad printing.

With the MCF you can

- measure the original
- pre-select substrate, ink film thickness, opacity and choice of basic shades
- generate a formula
- (if necessary), optimise the formula by using the correction program
- control and document systematically and objectively the constancy of the colour shade within the series production



# Ink Characteristics Table



Tampastar TPR	Tampaplus TPL	Tampaplus TPP	Tampapol TPY	Tampapur TPU	Tampatech TPT	Tampacure TPC	Glas Ink GL	Maraprop PP
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## Product information

Degree of gloss	glossy	glossy	glossy	glossy	high gloss	high gloss	high gloss	satin gloss	satin gloss
Drying	very fast	very fast	fast	fast	medium	medium	fast	medium	fast
Type of drying	physical	physical	physical	physical	reactive	reactive	UV-curing	reactive	physical
Ink system	1C or 2C	1C or 2C	1C or 2C	1C or 2C	2C	2C	1C or 2C	2C	1C
Resistance	resistant to petrol, alcohol	resistant to petrol, alcohol	resistant to oil, grease	resistant to chemicals	chemical and mech. resistant	resistant to chemicals	resistant to chemicals	dishwasher-proof	-
Special characteristics	universal use	universal use, good printability	good printability	good resistances	high resistance	good printability, long pot life	high resistance	dishwasher-proof	for non pre-treated PP

## Auxiliaries

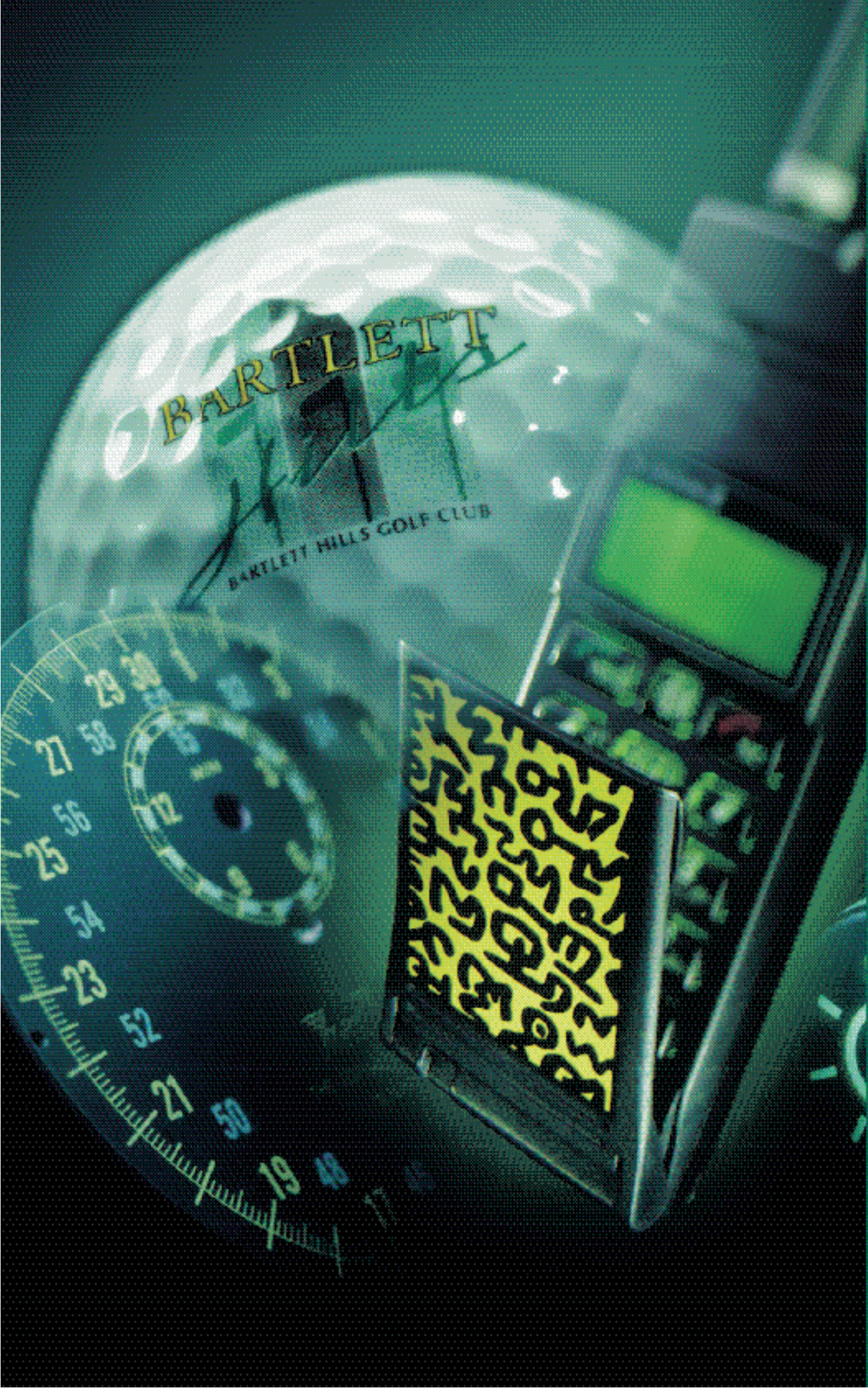
Thinner	TPV	TPV	TPV	TPV	TPV	TPV	TPV	-	-
Thinner, fast	TPV 2	TPV 2	TPV 2	TPV 2	TPV 2	TPV 2	TPV 2	GLTPV	PPTPV
Thinner, slow	TPV 3	TPV 3	TPV 3	TPV 3	TPV 3	TPV 3	-	-	-
Retarder	SV 1	SV 1	SV 1	SV 1	SV 1	SV 1	-	SV 1	SV 1
Retarder Paste	VP	VP	VP	VP	VP	VP	-	-	-
Hardener	H 1, 10%	H 1, 10%	H 1, 10%	H 1, 10%	H 1, 25%	-	-	GLH, 5%	-
Hardener, fast	H 2, 10%	-	H 2, 10%	H 2, 10%	H 2, 25%	H 2, 25%	H 2, 5%	-	-
Hardener, heat-reactive	HT 1, 10%	HT 1, 10%	HT 1, 10%	HT 1, 10%	HT 1, 25%	HT 1, 25%	-	-	-
Antistatic Paste	AP	AP	-	AP	AP	AP	AP	AP	AP
Opaqing Paste	OP 170	OP 170	-	OP 170	OP 170	OP 170	OP 170	-	-
Overprint Varnish/Bronze Binder	TPR 910	TPL 910	TPP 910	TPY 910	TPU 910	TPT 910	TPC 910	GL 910	PP 902
Transparent Base	TPR 409	-	-	-	TPU 409	-	TPC 409	GL 409	PP 409
Matting Paste	ABM	-	ABM	ABM	-	-	-	-	-
Matting Powder	MP	MP	MP	MP	MP	MP	MP	MP	MP
Levelling Agent	ES	ES	ES	ES	ES	ES	ES	VM 1	ES
Primer for PP	-	-	P 2	P 2	P 2	P 2	P 2	-	P 2
Cleaner	UR 3	UR 3	UR 3	UR 3	UR 3	UR 4	UR 3	UR 3	UR 3

## Substrates

ABS	●	●	●	●		●	●		
Acrylic glass (PMMA)	●	●	○				○		
Aluminium, anodized	●*	●*	●*	●*	●	●		●	
Thermosetting plastics	●*	●*	●*	●*	●	●	○*	●	
Glass, ceramics					○*	○*		●	
Varnished surfaces	●*	●*	●*	●*	●	●	●*	●	
Melamine resin					●	●			
Metal	●*	●*	●*	●*	●	●		●	
Paper, cardboard	●	●	●	●					
Polyacetal (POM)	●* ←	●* ←	●* ←	●* ←	● ←	● ←			
Polyamide (PA)	●* ←	●* ←	●* ←	●* ←	●	●	●*		
Polycarbonate (PC)	●	●	●				●		
Polyester (PET)	●* ←	●* ←	○* ←		● ←				
PE, pre-treated			●*	●*	●	●	●*		
PP, pre-treated			●*	●*	●	●	●*		●
PP, non pre-treated									●
Polystyrene (PS)	●	●	○				○		
Polyurethane, rigid	●*	●*		●*	●				
PVC, rigid	●	●	●	●			●		
PVC, soft	○	○							

● = suitable ○ = partly suitable \* = with hardener ✕ = not dishwasher-proof ← = with post-flame treatment or post-treatment with hot air (approx. 3-4 sec. at 300-400 °C)



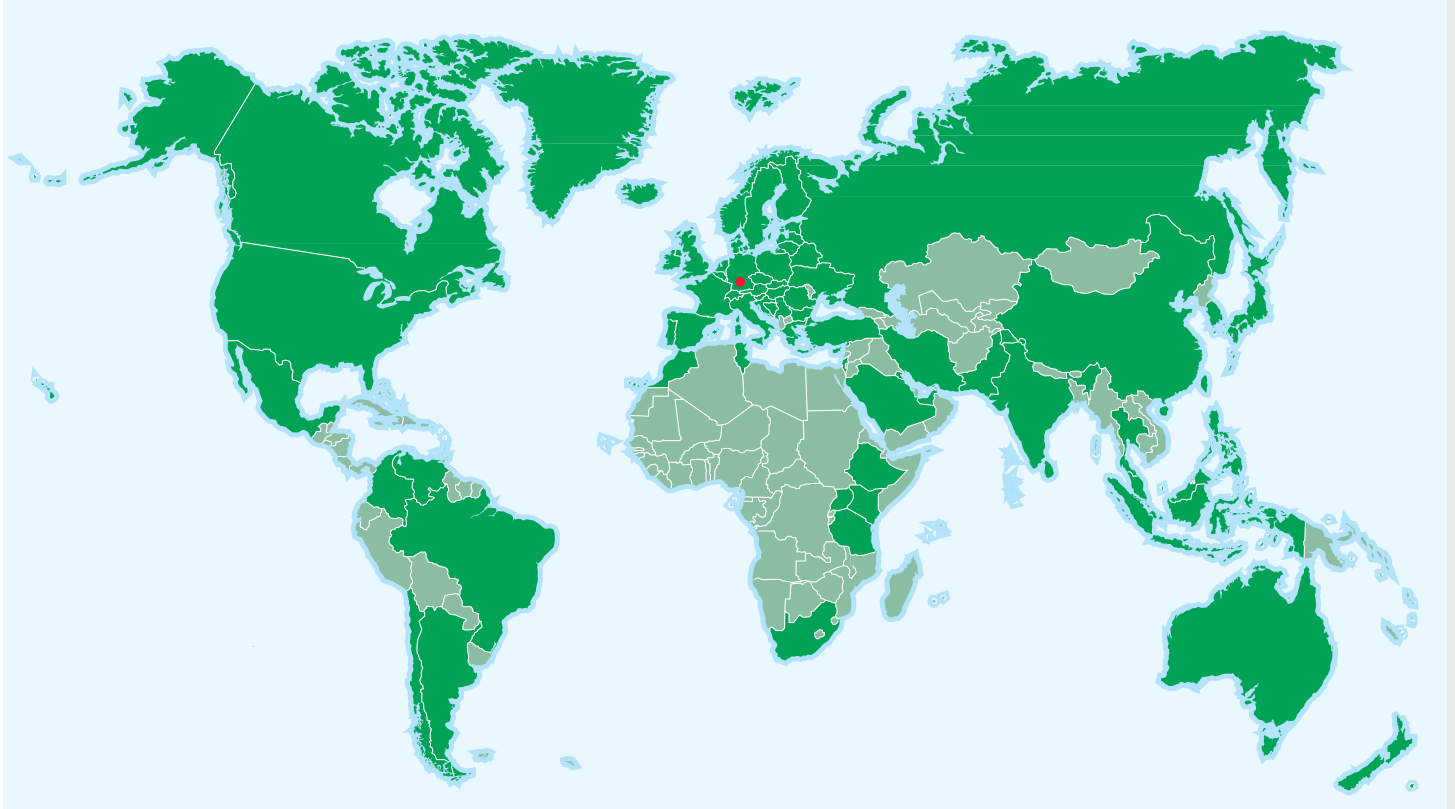


Marabu





**Marabu Distribution Partners** · Qualified Distribution Partners and Subsidiaries in more than 50 countries offer each customer competent expert advice on-site and a complete range of comprehensive services.



■ Countries with Marabu Distribution Partners or Subsidiaries

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