Pad Printing

Laser Systems

Automations

ORIGINAL TAMPOPRINT Germany

LEADS
Pad Printing Inks

PAD PRINTING LASER MARKING CONSUMABLES SERVICE

Ink range
For all pad printing systems

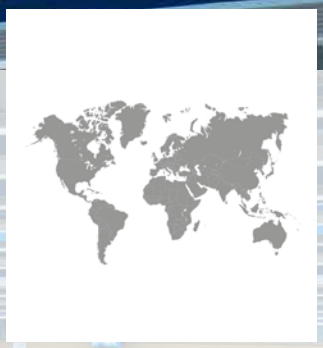
TAMPOPRINT®

Worldwide

TAMPOPRINT® GmbH
Headquarters
Germany

TAMPOPRINT® Int'l. Corp.
Subsidiary
USA

TAMPOPRINT® IBERIA S.A.U.
Subsidiary
Spain



Sales Network
Europe, America, Africa,
Asia, Australia

Industrial product marking and labeling using pad printing and lasers - that is our profession and our passion. TAMPOPRINT develops a perfectly coordinated system of machines and processes for numerous industries. Our goal: to make pad printing and laser processes better and more effective.

As a typical "hidden champion" from Baden-Württemberg, TAMPOPRINT is unbeaten when it comes to industrial pad printing and laser marking technologies that are in demand internationally. We have a special level of expertise in process and application technology. This enables us to offer coherent concepts and developments for every requirement of our customers from a single source.

technologies for your future

ORIGINAL TAMPOPRINT Germany

Pad printing machines

Summary

Everything from a single source

PROCESS OWNERSHIP

Consulting
Application technology
Development
Standard machines
Special machines
Consumables
Service
Accessories
Service
Retrofit

PRINT/LASER AUTOMATION MODULE ONE S
Pad printing and laser engraving in one process.

We take care of the entire process

Our Mission

Your Partner for Laser Marking and Pad Printing
As a company that has been supporting customer applications worldwide for decades through in-house developments in the field of pad printing and lasers, the definition of the company mission with "100 % process ownership" is almost logical. We see ourselves as a "one-stop shop" for all customers who need a partner who takes care of their needs right from the start. Our strength here lies in the turn-key solution, from the entry-level machine in the manual processing sector to the fully automated high-tech solution. We accompany our customers throughout their product life cycle and beyond. Driven by our mission, we not only take care of the machine, but also offer our customers all consumables from our own production sites as well as from selected suppliers.

Application Technology Service
Feasibility analysis and sampling
Zero and small series production
Development of process methods
Validation

Service
Technial Support
Maintenance and Repair
Retrofit, Spare Parts

Laser Systems
Standard machines
Automations
MOF Series
Integrated systems

Accessories
Ink/doctoring cups
Cleaning units
Service Units
and much more

ORIGINAL TAMPOPRINT Germany

Pad Printing Machines
Standard machines
Semi-automatic systems
Fully automatic systems

Pad Printing Clichés
Ready for printing, unprocessed
Cliché laser

PRINT IMAGE

Printing Pads
Standard and
special printing pads

COLOR

Pad Printing Inks
Standard ink types and shades
Special ink shades

Pad Printing Inks

Pad printing inks in general
In pad printing, both transparent halftone printing inks (CMYK) and opaque pad printing inks are used in many different ink shades.
Today, the comprehensive range of pad printing inks enables the customer to select a pad printing ink type that is precisely tailored to their requirements.
TAMPOPRINT pad printing inks comply with the REACH Directive (EC) No. 1907/2006 and the RoHS Directive 2011/65/EU and have the approvals for many other certifications required by the market worldwide.
Depending on the substrate and the requirements on the resistance of the pad printing inks, either 1- or 2-component inks are used.

UV pad printing inks
For special requirements we offer a UV pad printing ink (1-component).
Preferably used for high quality requirements of high-speed pad printing systems.
Low solvent content is in line with increased environmental awareness and at the same time it ensures a reliable production process with a high-quality print result.
Immediate further processing thanks to short drying times are a clear investment in the future.

Environmentally-friendly pad printing inks
In line with the current issues in dealing with the environment and safety, TAMPOPRINT develops innovative pad printing inks in cooperation with well-known manufacturers in the printing ink industry. This shows the constant willingness to innovate and the environmental awareness of our company. The ink types meet the growing demands of our customers for halogen- and cyclohexanone-free pad printing inks.

Mineral oil free packaging production
Our inks have few/no mineral oils, as we work with solvent-based inks. In packaging gravure or offset printing, high-boiling mineral oils are used, which have to be expelled from the print film at high temperatures (over 200 °C). This is not the case with us.
In contrast to heatset inks, our solvent-based inks of course have advantages here - the heatset inks dry faster. After printing, the printing process is complete. Our solvent-based inks still need a reaction time of 24 h up to 5 days. They react more quickly with heat, but they are not in the same high temperature range as heatset inks. Of course, offset printing cannot be generalized, as coldset inks or UV inks are also used.

Our service
A fast service in the field of standard and special ink types, basic ink types in standard and special ink shades is becoming more and more important. TAMPOPRINT can guarantee this fast service despite the large choice of ink types and ink shades on offer.

Material safety data sheets
Current material safety data sheets according to the REACH Directive (EC) No. 1907/2006 are available on request at any time.
Please send your inquiries to colourmsds@tampoprint.de.

Important note
Basically, all components must be used exclusively from one and the same manufacturer.
Always mix ink shades of only one ink type.
For example: Ink type ACP = ink shade 61 + ink shade 67.

Processing other media in pad printing
In addition to pad printing inks, other media such as primers, adhesives and lubricants, silicone or soldering pastes, noble metals, electrical conductive pastes or thermal conductive pastes, etc. can also be transferred to your product using the pad printing process.
Transferability must be checked and tested by our application engineering department in each individual case.

Storage
At 21 °C, storage stability of at least 12 months is guaranteed in unopened original containers. Excluded are bronze and effect colors. Higher storage temperatures reduce the storage stability.

Category

Pad Printing Inks

Basic ink formulations formulations
By using basic inks, we offer our customers the possibility of mixing special ink shades themselves.
We will be happy to advise you and provide you with a variety of formulations.
Ink types: ACP, N.
Ink mixing systems based on RAL and Pantone on request.
See ink shade card page 11.

Standard ink shades
We offer our ink types with up to 23 premixed standard ink shades. You will receive pad printing inks for all common applications.
This range also includes European ink shades for halftone 4-color printing (CMYK) as well as gold and silver.
The coverage of ink types and ink shades also depends on the surface to be printed and the engraving depth, cliché screening and the number of prints (single or double/multiple printing).
See ink shade card page 10.

Special ink types/shades
Based on your color specifications, the desired ink shade will be produced in our color laboratory.
Ink shade systems are:
RAL, PMS, NCS,
HKS K (glossy), HKS N (matt).
We will also find the right pad printing ink type for special applications.

Note: Most TAMPOPRINT solvent inks are offered in 1 liter containers. Depending on the specific weight differences of the respective ink types, a 1-liter container can weigh between 1.2-2.0 kg!

The ink types UV-RDF, RDF-HF and U-HF are offered in 1 kg containers. The specific weight differences of the individual ink types may mean that containers are not completely filled.

Technical Terms

1-component ink
The 1-component inks dry physically by evaporation of the solvents. This process can be supported by warm air.

2-component ink
After ink transfer and physical drying, a chemical crosslinking reaction starts between binding agent and hardener. The maximum processing time (pot life) is limited by the addition of hardener (the pot life varies depending on the ink type and hardener - please refer to the respective technical data for details). After this, reduced adhesion and resistance must be expected, even if the ink still appears liquid and processable.

Solvent-based pad printing inks
Our solvent based pad printing inks are available as 1- or 2-component inks. They are based on different solvents that offer the right properties and resistance depending on the application and substrate. In order for these inks to adhere to certain materials or if a certain level of resistance is to be met, various hardeners are recommended. These can be found on page 10 to 13 and in the respective technical data sheet in our ink catalog.

UV pad printing inks
UV pad printing inks are low-solvent pad printing inks that cure by irradiation with UV light. Since they are 1-component inks, the addition of a hardener is not required here.

Composition of the printing inks:

Solvent based inks	UV inks
Additives	Additives
Pigments / Extenders	Pigments / Extenders
Solvents	Monomers
Hardeners	Photoinitiators
Resins	Prepolymers

Viscosity
The TAMPOPRINT ink series are not adjusted ready for printing, but must be individually adjusted to the correct viscosity with the appropriate thinner (solvent) depending on the print image and application.

Print additives
Additives are substances added to solvent-based and UV pad printing inks in small quantities to achieve or improve certain properties. For example, additives are said to have a positive influence on processing and appearance.

Thinner (solvent)
The addition of a thinner not only influences the viscosity, flow properties and ink transfer behavior of the pad printing ink from the printing pad to the printed material, but also the drying speed in particular. In addition to universal and fast thinners, there are also thinners available that act slowly or very slowly depending on the ink type.

Retarder (solvent)
The retarder is a very slow thinner and only serves to extend the viscosity without having any negative effects on the ink viscosity. The addition of a retarder may also be necessary for large print images or slow pad printing machines.

Adhesive agent (primer)
In order to achieve ink adhesion with polyolefins such as PE (polyethylene) and PP (polypropylene), the surface of the printed material must be pretreated prior to the printing process. This can be done with corona, gas or plasma pre-treatment stations on your pad printing machine.
For PP (polypropylene), the offered adhesive agent PP-1 and PP-O can be used instead of one of the above-mentioned processes.

Leveling agent
The leveling agent reduces the surface tension of the pad printing ink. The additional defoaming effect makes large-area single-color prints (print images) appear more homogeneous (e.g. orange peel effects). To avoid adhesion problems when printing "ink on ink", the addition (admixture) of 1 % leveling agent should not be exceeded.

Hardener
A hardener is added to the 2-component inks for better resistance and adhesion to the substrate. This means that the hardener reacts with the remaining resin binder of the printing ink and creates a crosslinking of the printing ink or ink film on the printed material.

Disposal
The recommendation for proper disposal is described in section 13 of the material safety data sheet of the pad printing ink (material safety data sheet available on request).

Cleaning
For all ink types, the pad printing clichés and tools can be cleaned with our RM cleaning agent or our cliché spray.

Pretreatment methods

– Ionization: For all substrates
  Causes the discharge of surface tension
– Gas flame pretreatment
– Plasma pretreatment
– Corona pretreatment (high voltage arc)

Post-treatment methods

– Thermal diffusion shock drying
– Flame drying
– Hot air nozzle drying
– Infrared drying
– Oven drying
– Medium pressure mercury vapor lamp
  (UV lamp)

Standard ink shades

Ink types

Determining the article/order number

To determine the article number, please insert the two-digit number of the respective ink type into the article number and state the complete number when ordering.

Example: 10 09 XX
- **10** — Ink type
- **09** — Ink shade acc. to ink shade card
- **XX**

01	schwarz black noir negro		**11**	bordeaux rot bordeaux red bordeaux burdeos		**21**	brillant grün green brillant vert brillant verde brillante	
02	weiß white blanc blanco		**12**	rosa pink rose rosa		**22**	braun hell brown light brun clair marrón claro	
03	zitronengelb citron yellow jaune citron amarillo limón		**13**	blau hell blue light bleu clair azul claro		**23**	braun dunkel brown dark brun foncé marrón oscuro	
04	gelb mittel yellow medium jaune moyen amarillo medio		**14**	blau mittel blue medium bleu moyen azul medio		**50**	Klarlack Clear coat Vernis transparent Barniz neutral	
05	gelb dunkel yellow dark jaune foncé amarillo oscuro		**15**	blau ultra blue ultra bleu ultra azul ultra		**51**	silber silver argent plata	
06	orange orange orange naranja		**16**	blau dunkel blue dark bleu foncé azul oscuro		**52**	gold gold or ore	
07	gelb ocker ochre yellow jaune ocre amarillo ocre		**17**	türkis turquoise turquoise turquesa				
08	rot hell red light rouge clair rojo claro		**18**	violett violet violet violeta				
09	signalrot red bright rouge vif rojo vivo		**19**	grün hell green light vert clair verde claro				
10	karminrot carmine rouge carmin rojo carmin		**20**	tannengrün green fir vert sapin verde pino				

Ink shade not available for the ink types U-HF, RDF-HF

European ink shades

CMYK inks for the photo-realistic presentation

80	yellow Europaton lasierend process yellow Europe shade yellow (jaune) Europe effet lasuré color de cuatricomía amarillo Europa
81	magenta Europaton lasierend process magenta Europe shade magenta Europe effet lasuré color de cuatricomía magenta Europa
82	cyan Europaton lasierend process cyan Europe shade cyan Europe effet lasuré color de cuatricomía cyan Europa

Note: The ink shades shown here do not correspond to the real appearance of the individual ink types and can only serve as an indicator.

RAL/PANTONE Ink mixing system

Determining the article/order number

To determine the article number, please insert the two-digit number of the respective ink type into the article number and state the complete number when ordering.

Example: 10 09 XX
- XX — Ink shade acc. to ink shade card
- 10 09 — Ink type

61	zitronengelb citron yellow jaune citron amarillo limón		71	weiß white blanc blanco	
62	gelb yellow jaune amarillo		72	schwarz black noir negro	
63	orange orange orange naranja				
64	rot hell red light rouge clair rojo claro		Ink shade not available for the ink types ACP, CFU, U-HF		
65	rot red rouge rojo				
66	rosa pink rose rosa				
67	violett violet violet violeta				
68	blau blue bleu azul				
69	grün green vert verde				
70	braun hell brown light brun clair marrón claro		Ink shade not available for the ink types ACP, CFU, U-HF		

Note: The ink shades shown here do not correspond to the real appearance of the individual ink types and can only serve as an indicator.

Standard ink types

Materials to be printed

With regard to the strong fluctuations of the chemical composition and the manufacturing method of substrates, a suitability test (test print) must always be carried out. Antistatic additives, release agents and lubricants can have a negative effect on the ink adhesion.

Materials to be printed	ACP	B	B/ GL	CFU	F	GU-N	L	LOGO	M	N	P	P-AF	RDF-HF	S	TH-G	TP-CD	TP-PP	U-HF	UV-RDF	W
Components	1-C 2-C	2-C	2-C	1-C 2-C	1-C	1-C 2-C	2-C	2-C	2-C	2-C	1-C 2-C	1-C 2-C	1-C 2-C	2-C	1-C	1-C 2-C	1-C	1-C 2-C		2-C
ABS	•			•			•	•	•	•	•	•		•				•	•	•
Acrylic glass	•			•				•	•	•	•	•						•		
Aluminum									•	•				•						
Aluminum anodized			•		•				•	•										
Cellulose acetate	•	•							•	•										
Thermosetting plastics		•	•				•		•	•			•		•	•		•		•
Elastomers						•														
Glass			•						•	•					•					
Rubber						•														
Epoxy resins								•												
Rigid PVC	•			•	•				•	•	•	•						•	•	•
HDPE and LDPE (x3)		x3							x3	x3	x3	x3						x3	x3	x3
Wood	•			•					•	•	•	•						•		
Ceramic			•							•					•					
Leather	•			•		•														
Lexan										•										
Makrolon (PC)	•										•	•						•		
Metal		•	•		•		•		•	•				•	•	•				•
Non-ferrous metal			•				•		•	•						•				•
Noryl		•							•	•										•
Lacquered surface		•			•		•		•	•	•	•	•			•		•	•	•
Powder-coated surface		•											•			•		•		
Chrome, nickel, gold and rhodium-plated surfaces			•						•											
Paper	•			•							•	•						•		

b = limited
1-C = 1-component ink
2-C = 2-component ink
x1 = only with thermal post-treatment, approx. 130 °C (with gas flame or oven)
x3 = only with pretreatment

Environmentally friendly Pad printing inks

Standard ink types

Materials to be printed

With regard to the strong fluctuations of the chemical composition and the manufacturing method of substrates, a suitability test (test print) must always be carried out. Antistatic additives, release agents and lubricants can have a negative effect on the ink adhesion.

Materials to be printed	ACP	B	B/ GL	CFU	F	GU-N	L	LOGO	M	N	P	P-AF	RDF-HF	S	TH-G	TP-CD	TP-PP	U-HF	UV-RDF	W
Components	1-C 2-C	2-C	2-C	1-C 2-C	1-C	1-C 2-C	2-C	2-C	2-C	2-C	1-C 2-C	1-C 2-C	1-C 2-C	2-C	1-C	1-C 2-C	1-C	1-C 2-C		2-C
PET (PETP)	•								•	•			•						•	
Polyacetat (x1)		x1								x1	x1	x1								
Polyamide	2-K	•		2-K		•			•	•			2-K	•				•		•
Polyethylen (x3)	•	x3		x3		x3			x3	x3	x3	x3	x3			x3		x3	x3	x3
Polycarbonate	•			•					•	•	•	•	•					•		•
Polyester							•		•	•	•	•								•
Polyhydroxyal-kanoate (PHA)																		•		
Polymethacry-late																				•
Polymethylme-thacrylate									•	•	•	•								
Polypropylene (x3)	2-K	x3		x3			x3		x3	x3	x3	x3	x3	x3		x3	•	x3	x3	x3
Polystyrene	•			•					•	•	•	•						•	•	•
Polyurethane				•		•			•	•	•	•						•		•
Powder coa-tings		•							•	•								•		
SAN	•	•		•					•	•	•	•						•		
Soft lacquers						•		•								b				
Textiles						•			•	•								•		
Thermoplastics TPE						•		•												
UV lacquer																•				
Soft PVC	•					•													•	

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x3 = only with pretreatment

Environmentally friendly Pad printing inks


technologies

Standard ink types

Properties & Resistances

Overview of the properties of the ink film when selecting the ink type, taking into account the material. The table provides information on the mechanical load-bearing capacity, the optical appearance and notes on further processing possibilities of the ink film.

Characteristics	ACP	B	B/ GL	CFU	F	GU-N	L	LOGO	M	N	P	P-AF	RDF-HF	S	TH-G	TP-CD	TP-PP	U-HF	UV-RDF	W
Impact resistant							•	•					•					•	•	
Block resistant							•		•	•	•	•	•					•	•	
Permanently elastic	•			•		•		•	•	•				•	•				•	
Coverage (good)		•	•	•				•	•	•			•	•	•		•	•	•	
Gloss ink	•	•		•			•	•	•	•	•	•	•	•	•	•	•	•	•	•
Suitable for food packaging (exterior)	•	•	•	•	•		•		•	•	•	•	•	•			•	•	•	•
Air drying	•	•	•	•		•	•	•	•	•	•	•	•	•		•	•	•		•
Oven drying	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•
Raster capable		•	•				•	•	•	•	•	•		•				•	•	•
Abrasion resistant			•				•	•	•	•			•	•				•	•	
Satin finish ink			•		•	•														
Stackable													•					•	•	
Deep-drawable					•	•														
Drying slow		•	•				•	•	•	•										
Drying fast	•			•	•	•							•	•	•	•		•		
Flow (good)		•	•	•	•		•	•	•	•	•	•	•	•	•			•	•	•
Suitable for bonding					•															
Mechanical resistance	•	•	•	•			•	•	•	•	•	•		•	•		•	•	•	•

• = suitable

Information about the resistance of an ink type on a suitable material. The resistance of an ink type when exposed to a substance (or light) is described.

Resistance	ACP	B	B/ GL	CFU	F	GU-N	L	LOGO	M	N	P	P-AF	RDF-HF	S	TH-G	TP-CD	TP-PP	U-HF	UV-RDF	W
Alkalis, diluted	•	•	•	•		b	•	b	•	•	•	•	2-C	•	b			•	•	•
Alcohol	2-C	•	•	2-C		2-C	•		•	•	2-C	2-C	2-C	•		b 2-C		2-C	•	•
Alcohol cleaning agent	2-C	•	•	2-C		2-C	•		•	•	2-C	2-C	2-C	•		b 2-C	b	2-C	•	•
Chemicals	2-C	b	b	2-C	•	•	•	•	•	•	b	b	2-C	•	•	b	•	2-C	•	•
Hand perspiration	•	•	•	•		•	•	•	•	•	•	•	•	•		•		2-C	•	•
Light	•			•		•	•	•	b	b			b	•	•	•	•	b	•	
Solvents, organic	•	•	•	•			•		•	•						b		•		•
Oils and greases	•	•	•	•		•	•		•	•	•	•	2-C	b 2-C	•	•	b	2-C	•	•
Acids, diluted	2-C	b	•	2-C		b	•		•	•	b	b	b	•	•			b	•	•
Water	b	•	•	b		2-C	•	•	•	•	2-C	2-C	b	•		•	b	b	•	•
Weathering				•		•	•	•	b	b			b	•	•	•	•	•	•	

• = resistant
2-C = 2-component unk
b = limited

Environmentally friendly
Pad printing inks

Application technical data sheet

ACP

1- and 2-component ink, gloss ink

Free of cyclohexanone, aromatic compounds, phthalates

Field of application

For high-speed pad printing machines up to 4,000 cycles/h. Universally applicable pad printing ink. Suitable for printing on the side of the packaging facing away from the food, provided that the inks are used properly and professionally.

Properties	Permanently elastic, suitable for food packaging (outside), air drying, oven drying, fast drying, mechanical resistance.		
Print technical note	For higher mechanical and chemical loads or if greater adhesive strength is required, the ACP ink series can also be used as a 2-component ink. During processing and drying of the ink with hardener, it should be noted that the processing and curing temperature must not be below 15 °C, as otherwise chemical cross-linking will come to a standstill. Excessive humidity should also be avoided in the first few hours, as the hardener is moisture-sensitive.		
Drying	Physically drying and chemically cross-linking. 1-K: At room temperature (21 °C) approx. 30-35 seconds (dust-dry). 2-K: When used with LMN 3 hardener, inks in the ACP series only achieve their high level of resistance and adhesion after chemical cross-linking, which is completed after approx. 36 hours at a minimum temperature of 21 °C. It is advisable to use heat drying to accelerate ink drying on the substrate. Please note: after heat drying, there must be a cooling section, otherwise the printed parts may "stick together".		
Curing	At room temperature (20-25 °C) 1-component ink approx. 1 day, 2-component ink approx. 2 days.		
Pot life	Pot life of the mixed ink at least 48 hours (21 °C). After this time, reduced adhesion and resistance must be expected, even if the ink still appears liquid and processable.		
Ability to over-print	2-component ink within 24 hours.		
Please note	The high mechanical and chemical resistance is only achieved after the ink has fully cured.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Only use RM cleaning agent. All cleaning devices and auxiliaries may only be used for chlorine- and cyclohexanone-free ink, otherwise they will be contaminated with halogen. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 25–35 %**	**Thinner VDL-K slow drying** **Thinner VDL-K 380 very slow drying** **Thinner VDS-K quick drying** **Thinner VDN-K standard**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ-K**
	Hardener	**Mixing ratio 10 %**	**Hardener LMN 3**
	Leveling agent	**Mixing ratio 0,5–1%**	**Leveling agent VL-K**

Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

ACP

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
13	13	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
13	13	51	Silver	1 Liter			
13	13	52	Gold	1 Liter			
13	13	50	Clear coat	1 Liter			
Other ink shades on request							
Art.-No.			**Basic inks**	**Container**	**kg**		
13	13	61** - 63**	Basic inks	1 Liter	1 kg		
13	13	65** - 69**	Basic inks	1 Liter	1 kg		
13	13	71** - 72**	Basic inks	1 Liter	1 kg		
13	13	60	Lacquer ACP-60	1 Liter	1 kg		
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	11	VDL-K	1 Liter	approx. 1 kg		
12	01	24	VDL-K	5 Liter	approx. 5 kg		
12	02	02	VDL-K 380	1 Liter	approx. 1 kg		
12	01	12	VDS-K	1 Liter	approx. 1 kg		
12	01	13	VDS-K	5 Liter	approx. 5 kg		
12	02	00	VDN-K	1 Liter	approx. 1 kg		
12	02	20	VDN-K	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	08	VZ-K	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	10	LMN 3	0,2 Liter	approx. 0,2 kg		
12	23	10	LMN 3	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
10	53	50	VL-K	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	94	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

B 2-component ink, gloss ink

Available as matt ink on request

Field of application
Used in "open" and "hermetic" pad printing systems. Often used in the automotive industry for PA, PP and PE substrates.

Properties	Good coverage, suitable for food packaging (outside), air drying, oven drying, raster capable, slow drying, good flow, mechanical resistance		
Print technical note	When processing, cans with BH hardener must be sealed airtight immediately after removal.		
Pre-treatment	All polyolefins (polyethylene, polypropylene).		
Drying	After adding the BH hardener, physical chemical drying. At room temperature (20-25 °C) approx. 10-15 min. (hand and dust dry). When exposed to heat/air circulation approx. 1 min., with thermal diffusion a few seconds. Oven drying: time and temperature depend on the materials to be printed (Reference value: 80 °C approx. 20 min. depending on ink film thickness).		
Curing	At room temperature (20-25 °C) approx. 5 days.		
Pot life	Pot life of the mixed ink approx. 8 hours, after which reduced adhesion and resistance must be expected, even if the ink still appears liquid and processable.		
Ability to over-print	Within 24 hours.		
Please note	The high mechanical and chemical resistance is only achieved after the ink has fully cured.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10-20 %**	**Thinner VD slow drying** **Thinner VD 3 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ**
	Hardener	**Mixing ratio 25 %**	**Hardener BH**
	Leveling agent	**Mixing ratio 1–5 %**	**Leveling agent VL**

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Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

B

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	02	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	02	50	Bronze binder	1 Liter			
10	02	51	Black matt	1 Liter			
10	02	52	White matt	1 Liter			
10	02	57	Ochre yellow matt	1 Liter			
10	02	74	Silver	1 Liter			
10	02	75	Gold	1 Liter			
10	02	80	Process yellow Europe shade	1 Liter			
10	02	81	Process magenta Europe shade	1 Liter			
10	02	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
10	02	83	Transparent paste	1 Liter			
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	01	VD	1 Liter	approx. 1 kg		
12	91	01	VD	5 Liter	approx. 5 kg		
12	01	04	VD 3	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	01	VZ	1 Liter	approx. 1 kg		
Art.-No.			**Hardner**	**Container**	**kg**		
12	02	99	BH	0,2 Liter	approx. 0,2 kg		
12	53	01	BH	0,5 Liter	approx. 0,5 kg		
12	03	01	BH	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	94	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

B/GL 2-component ink, silk gloss

Field of application
Special area of application: Bottles, drinking glasses and glass in general, sanitary industry e.g. fittings.

Properties	Good coverage, slow drying, suitable for food packaging (outside), air-drying, oven-drying, raster-capable, abrasion-resistant, good mechanical good mechanical resistance.		
Print technical note	In case of flow disturbance, use leveling agent VL (max. 1-5 %). When processing, cans with BH/GL hardener must be sealed airtight immediately after removal.		
Pre-treatment	Parts to be printed must be chemically clean and dust-free.		
Drying	After adding the hardener BH/GL, physical-chemical drying. At room temperature (20-25 °C) approx. 10-15 min. (hand and dust dry). When exposed to heat/air circulation approx. 40-60 sec, max. resistance is achieved by oven drying at 140 °C approx. 20 min.		
Curing	At room temperature (20-25 °C) approx. 5-6 days.		
Pot life	Pot life of the mixed ink approx. 8 hours, after which reduced adhesion and resistance must be expected, even if the ink still appears liquid and processable.		
Ability to over-print	Within 24 hours.		
Please note	The high mechanical and chemical resistance is only achieved after the ink has fully cured or only with oven drying.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VD** **Thinner VD 3**
	Hardener	**Mixing ratio 5 %**	**Hardener BH / GL** **Hardener BH / GL-02**
	Leveling agent	**Mixing ratio 1–5 %**	**Leveling agent VL**

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Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

B/GL

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	23	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	23	50	Bronze binder	1 Liter			
10	23	51	Silver	1 Liter			
10	23	52	Gold	1 Liter			
10	23	80	Process yellow Europe shade	1 Liter			
10	23	81	Process magenta Europe shade	1 Liter			
10	23	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	01	VD	1 Liter	approx. 1 kg		
12	91	01	VD	5 Liter	approx. 5 kg		
12	01	04	VD 3	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	23	00	BH / GL-02	0,2 Liter	approx. 0,2 kg		
12	53	00	BH / GL-02	0,5 Liter	approx. 0,5 kg		
12	03	00	BH / GL-02	1 Liter	approx. 1 kg		
12	53	05	BH / GL	0,5 Liter	approx. 0,5 kg		
12	03	05	BH / GL	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	94	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
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colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

CFU

1- and 2-component ink, gloss ink

Free of cyclohexanone and phthalates

Field of application
Universally applicable pad printing ink.

Properties	High elasticity, glossy, highly opaque and chemically cross-linking due to the addition of hardener. Suitable for food packaging (outside), air drying, oven drying, fast drying, good flow, mechanical resistance.		
Print technical note	During processing and drying of the ink with hardener, make sure that the processing and curing temperature does not fall below 15 °C, otherwise the chemical cross-linking will come to a standstill. Excessive humidity should also be avoided in the first few hours, as the hardener is moisture-sensitive.		
Pre-treatment	All polyolefins (polyethylene, polypropylene).		
Drying	The ink type CFU dries physically by evaporation of the solvents at 20 °C within 5 minutes (touch dry). Chemical drying takes place through the addition of hardener (approx. 36 hours at 21 °C). It is advisable to use heat drying to accelerate the drying of the ink on the substrate. Please note: After heat drying, a cooling section must be provided, otherwise the printed parts may "stick together".		
Curing	At room temperature (20-25 °C) 1-component ink approx. 1 day, 2-component ink approx. 2 days.		
Pot life	2-component ink: Pot life of the mixed ink 8-12 hours (21 °C). After this time reduced adhesion and resistance, even if the ink still appears liquid and processable.		
Ability to over-print	With 2-component inks, care must be taken to ensure that overprinting is always carried out before complete curing of the ink. Fully cured inks can no longer be overprinted.		
Please note	The high mechanical and chemical resistance is only achieved after the ink has fully cured.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Only use RM cleaning agent. All cleaning devices and auxiliaries may only be used for chlorine- and cyclohexanone-free ink, otherwise they will be contaminated with halogen. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 15-25 %**	**Thinner VDL-K slow drying,** **Thinner VDL-K 380 very slow drying** **Thinner VDS-K quick drying** **Thinner VDN-K standard**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ-K**
	Hardener	**Mixing ratio 10 %**	**Hardener LMN 3** **Hardener LMN 1**
	Leveling agent	**Mixing ratio max. 0,5–1 %**	**Leveling agent VL-K**

Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

CFU

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
13	14	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
13	14	51	Silver	1 Liter			
13	14	52	Gold	1 Liter			
13	14	80	Process yellow Europe shade	1 Liter	1 kg		
13	14	81	Process magenta Europe shade	1 Liter	1 kg		
13	14	82	Process cyan Europe shade	1 Liter	1 kg		
Other ink shades on request							
Art.-No.			**Basic inks**	**Container**	**kg**		
13	14	61** - 63**	Basic inks	1 Liter	1 kg		
13	14	65** - 69**	Basic inks	1 Liter	1 kg		
13	14	71** - 72**	Basic inks	1 Liter	1 kg		
13	14	60	Extender	1 Liter	1 kg		
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	11	VDL-K	1 Liter	approx. 1 kg		
12	01	24	VDL-K	5 Liter	approx. 5 kg		
12	02	02	VDL-K 380	1 Liter	approx. 1 kg		
12	01	12	VDS-K	1 Liter	approx. 1 kg		
12	01	13	VDS-K	5 Liter	approx. 5 kg		
12	02	00	VDN-K	1 Liter	approx. 1 kg		
12	02	20	VDN-K	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	08	VZ-K	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	10	LMN 3	0,2 Liter	approx. 0,2 kg		
12	23	10	LMN 3	1 Liter	approx. 1 kg		
12	03	09	LMN 1	0,2 Liter	approx. 0,2 kg		
12	03	02	LMN 1	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
10	53	50	VL-K	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	94	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

F 1-component ink

Field of application
Printing on metals for which the requirements of a 2-component ink are not decisive.

Properties	Oven drying, thermoformable, fast drying, good flow, can be welded.		
Print technical note	Printing surfaces must be chemically clean and free of grease.		
Drying	Physically very fast drying, heat shock drying 10-20 seconds. At room temperature (20-25 °C) approx. 1-2 min. hand-dry and dust-dry.		
Curing	At room temperature (20-25 °C) 24 hours. Oven drying: time and temperature depend on the materials to be printed (Reference value: 80 °C approx. 20 min. depending on ink film thickness).		
Ability to over-print	Yes		
Please note	The high mechanical and chemical resistance is only achieved after the ink has fully cured.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner** **Retarder**	**Mixing ratio 10 – 20 %** **Mixing ratio 5-25 %**	**Thinner VD 2 standard** **Retarder VZ 3**

For your inquiry

F

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	06	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	06	50	Bronze binder	1 Liter			
10	06	51	Silver	1 Liter			
10	06	52	Gold	1 Liter			
10	06	80	Process yellow Europe shade	1 Liter			
10	06	81	Process magenta Europe shade	1 Liter			
10	06	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	02	VD 2	1 Liter	approx. 1 kg		
12	91	02	VD 2	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	03	VZ 3	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
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Application technical data sheet

GU-N 1- and 2-component ink, silk gloss

Field of application
Pad printing ink type preferably for printing on flexible substrates.

Properties	Permanently elastic, air drying, oven drying, thermoformable, fast drying. The print is permanently elastic and largely resists deformation of the substrate.		
Print technical note	As the substrates can differ greatly in terms of their chemical structure and production method, a suitability test must always be carried out.		
Pre-treatment	Pre-treatment must be checked depending on the material to be printed.		
Drying	Physically or chemically drying. At room temperature (20-25 °C) approx. 1-2 min. (hand and dust dry). When exposed to heat approx. 10-20 seconds.		
Curing	2-component ink approx. 3 days, 1-component ink 24 hours (room temperature 20-25 °C).		
Pot life	GU-N ink can be used as a 1- and 2-component ink. Pot life of the mixed ink at 20 °C approx. 8 hours.		
Ability to over-print	1-component ink yes, 2-component ink within 24 hours.		
Please note	GU-N can also be used as a 2-component ink for higher mechanical and chemical loads or if greater adhesion is required.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 15–30 %**	**Thinner VD slow drying** **Thinner VD 3 quick drying**
	Hardener	**Mixing ratio 10 %**	**Hardener BH-N**

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For your inquiry

GU-N

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
13	28	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
13	28	50	Clear coat	1 Liter			
13	28	51	Silver	1 Liter			
13	28	52	Gold	1 Liter			
13	28	80	Process yellow Europe shade	1 Liter			
13	28	81	Process magenta Europe shade	1 Liter			
13	28	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	01	VD	1 Liter	approx. 1 kg		
12	91	01	VD	5 Liter	approx. 5 kg		
12	01	04	VD 3	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	53	09	BH-N	0,2 Liter	approx. 0,2 kg		
12	23	08	BH-N	0,5 Liter	approx. 0,5 kg		
12	03	08	BH-N	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
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at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

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Application technical data sheet

L 2-component ink, gloss ink

Field of application
Technical products with very high requirements for chemical stress (e.g. automotive sector).

Properties	Impact resistant, block resistant, air drying, oven drying, raster-capable, abrasion-resistant, drying slow, flow (good), mechanical resistance.		
Print technical note	When processing, cans with LMN 1 hardener must be sealed airtight immediately after removal.		
Pre-treatment	All polyolefins (polyethylene, polypropylene).		
Drying	Chemical-reactive hardening. After adding BH hardener, physical chemical drying. At room temperature (20-25 °C) approx. 5 min. (hand and dust dry). When exposed to heat/air circulation approx. 1-2 min., with thermal diffusion a few seconds. Oven drying: time and temperature depend on the materials to be printed (Reference value: 80 °C approx. 20 min. depending on ink film thickness).		
Curing	At room temperature (20-25 °C) approx. 3-4 days.		
Pot life	Retarder - only use retarder VZ 380. Pot life of the mixed ink at 20 °C approx. 8 hours, after which reduced adhesion and resistance must be expected, even if the ink still appears liquid and processable.		
Ability to over-print	Reactive curing inks have the property of being practically solvent-resistant after curing. Ink type L can only be overprinted within the curing time of approx. 24 hours. The best multi-color prints with superimposed ink areas are achieved with printing units connected in series and intermediate drying stations.		
Please note	**The high mechanical and chemical resistance is only achieved after the ink has fully cured. Caution! First add the thinner to the ink and then add the LMN 1 hardener.**		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VDL 380 slow drying Thinner VDS 380 standard Thinner VDS 1015 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ 380**
	Hardener	**Mixing ratio max. 10 %**	**Hardener LMN 1 (UV resistance)**
	Leveling agent	**Mixing ratio 0,5–1 %**	**Leveling agent VL**

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E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

L

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	11	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	11	50	Clear coat	1 Liter			
10	11	51	Silver	1 Liter			
10	11	52	Gold	1 Liter			
10	11	53	Clear coat matt, UV resistant	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	05	VDL 380	1 Liter	approx. 1 kg		
12	01	06	VDS 380	1 Liter	approx. 1 kg		
12	01	08	VDS 1015	1 Liter	approx. 1 kg		
12	01	10	VDS 1015	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	06	VZ 380	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	09	LMN 1	0,2 Liter	approx. 0,2 kg		
12	03	02	LMN 1	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

LOGO 2-component ink, gloss ink

Field of application
Especially for impact-resistant printing on painted golf balls.

Properties	Impact resistant, permanently elastic, coverage (good), air drying, oven drying, raster-capable, abrasion-resistant, slow drying, flow (good), mechanical resistance.		
Print technical note	Only use ink LOGO with hardener BH-N, otherwise the impact resistance cannot be guaranteed.		
Pre-treatment	–		
Drying	Physical chemical drying after adding BH-N hardener. At room temperature (20-25 °C) approx. 15 min. (dry to the touch and dust-dry). When exposed to heat and air circulation approx. 30 seconds.		
Curing	At room temperature approx. 5-6 days.		
Pot life	Pot life of the mixed ink approx. 8 hours.		
Ability to over-print	Within 24 hours.		
Please note	The stated properties are only achieved after complete curing.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 15–30 %**	**Thinner VD slow drying** **Thinner VD 3 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ**
	Hardener	**Mixing ratio 25 %**	**Hardener BH-N**
	Leveling agent	**Mixing ratio 1–5 %**	**Leveling agent VL**

This data is based on current technical knowledge and experience.
However, due to the wide range of possible influences during processing, they do not exempt the user from carrying out his own tests. No legally binding assurance of specific properties or suitability for a specific application can be derived from our information.
Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

LOGO

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	00	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.1 – 1.8 kg!		
10	00	51	Silver	1 Liter			
10	00	52	Gold	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	01	VD	1 Liter	approx. 1 kg		
12	91	01	VD	5 Liter	approx. 5 kg		
12	01	04	VD 3	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	01	VZ	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	53	09	BH-N	0,2 Liter	approx. 0,2 kg		
12	23	08	BH-N	0,5 Liter	approx. 0,5 kg		
12	03	08	BH-N	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

M 2-component ink, gloss ink

Field of application
Technical products, good adhesion on metal.

Properties	Block-resistant, permanently elastic, coverage (good), suitable for food packaging (outside), air drying, oven drying, raster capable, abrasion-resistant, slow drying, flow (good), mechanical resistance.		
Print technical note	In case of flow problems, use flow agent VL. When processing, cans with hardener must be sealed airtight immediately after removal.		
Pre-treatment	Polypropylene, polyethylene, high-pressure and low-pressure polyethylene.		
Drying	Chemically reactive curing. At room temperature (20-25 °C) approx. 2-3 min. (hand and dust dry). Heat shock drying approx. 30 sec, Oven drying: time and temperature depend on the materials to be printed (Reference value: 80 °C approx. 20 min. depending on ink film thickness).		
Curing	At room temperature (20-25 °C) approx. 3-4 days.		
Pot life	Pot life of the mixed ink approx. 12-14 hours.		
Ability to over-print	Within 24 hours.		
Please note	The high mechanical and chemical resistance is only achieved after complete curing of the ink.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VDL 380 slow drying** **Thinner VDL 1015 standard** **Thinner VDS 1015 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ 380**
	Hardener	**Mixing ratio 20 %**	**Hardener LMN 3** **Hardener LMN 1 (UV resistance)**
	Leveling agent	**Mixing ratio 0,5–1 %**	**Leveling agent VL**

For your inquiry

M

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	12	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	12	51	Silver	1 Liter			
10	12	52	Gold	1 Liter			
10	12	55	Black matt	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	05	VDL 380	1 Liter	approx. 1 kg		
12	01	07	VDL 1015	1 Liter	approx. 1 kg		
12	91	07	VDL 1015	5 Liter	approx. 5 kg		
12	01	08	VDS 1015	1 Liter	approx. 1 kg		
12	01	10	VDS 1015	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	06	VZ 380	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	10	LMN 3	0,2 Liter	approx. 0,2 kg		
12	23	10	LMN 3	1 Liter	approx. 1 kg		
12	03	09	LMN 1	0,2 Liter	approx. 0,2 kg		
12	03	02	LMN 1	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

N 2-component ink, gloss ink

Field of application
Sporting goods, tennis rackets, cosmetic products (e.g. shampoo bottles, cream jars), technical products.

Properties	Block-resistant, permanently elastic, coverage (good), suitable for food packaging (outside), air drying, oven drying, raster-capable, abrasion-resistant, slow drying, flow (good), mechanical resistance.		
Print technical note	In case of flow problems, use flow agent VL. When processing, cans with hardener must be sealed airtight immediately after removal.		
Pre-treatment	Polypropylene, polyethylene, high-pressure and low-pressure polyethylene.		
Drying	Chemically reactive curing. At room temperature (20-25 °C) approx. 2-3 min. (hand-dry and dust-dry). Heat shock drying approx. 30 sec., heat shock is recommended. Oven drying: time and temperature depend on the materials to be printed (Reference value: 80 °C approx. 20 min. depending on ink film thickness).		
Curing	At room temperature (20-25 °C) approx. 3-4 days.		
Pot life	Pot life of the mixed ink approx. 12-14 hours.		
Ability to over-print	Within 24 hours.		
Please note	The high mechanical and chemical resistance is only achieved after the complete curing of the ink.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VDL 380 slow drying** **Thinner VDL 1015 standard** **Thinner VDS 1015 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ 380**
	Hardener	**Mixing ratio 20 %**	**Hardener LMN 3** **Hardener LMN 1**
	Leveling agent	**Mixing ratio 0,5–1 %**	**Leveling agent VL**

For your inquiry

N

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	13	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	13	50	Clear coat	1 Liter			
10	13	51	Silver	1 Liter			
10	13	52	Gold	1 Liter			
10	13	53	Gold brilliant	1 Liter			
10	13	80	Process yellow Europe shade	1 Liter			
10	13	81	Process magenta Europe shade	1 Liter			
10	13	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
10	13	83	Transparent paste	1 Liter	Spezifisches Gewicht 1,2 – 2,0 kg		
Art.-No.			**Basic inks**	**Container**			
10	13	61** - 72**	Basic inks	1 Liter			
10	13	60	Extender N-60	1 Liter			
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	05	VDL 380	1 Liter	approx. 1 kg		
12	01	07	VDL 1015	1 Liter	approx. 1 kg		
12	91	07	VDL 1015	5 Liter	approx. 5 kg		
12	01	08	VDS 1015	1 Liter	approx. 1 kg		
12	01	10	VDS 1015	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	06	VZ 380	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	10	LMN 3	0,2 Liter	approx. 0,2 kg		
12	23	10	LMN 3	1 Liter	approx. 1 kg		
12	03	09	LMN 1	0,2 Liter	approx. 0,2 kg		
12	03	02	LMN 1	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

P 1- and 2-component ink, gloss ink

Field of application
Medical industry, packaging industry.

Properties	Block-resistant, suitable for food packaging (outside), air drying, oven drying, raster-capable, flow (good), mechanical resistance.		
Print technical note	For higher mechanical and chemical loads or if greater adhesion is required, ink type P can also be used as a 2-component printing ink. When processing, cans with BH hardener must be sealed airtight immediately after removal.		
Pre-treatment	All polyolefins.		
Drying	Physically drying and chemically cross-linking. At room temperature (20-25 °C) approx. 2-3 min. (dry to the touch and dust-dry). When exposed to heat/air circulation approx. 30-60 sec. Oven drying: time and temperature depend on the materials to be printed on (Reference value: 80 °C approx. 20 min. depending on ink film thickness).		
Curing	1-component ink at room temperature (20-25 °C) approx. 24 hours. 2-component ink + hardener BH at room temperature (20-25 °C) 3-4 days.		
Pot life	2-component ink: Pot life of the mixed ink approx. 10 hours, after which reduced adhesion and resistance must be expected, even if the ink still appears liquid and processable.		
Ability to over-print	1-component ink always, 2-component ink within 24 hours.		
Please note	–		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VD slow drying** **Thinner VD 3 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ**
	Hardener	**Mixing ratio 10 %**	**Hardener BH**
	Leveling agent	**Mixing ratio 1–5 %**	**Leveling agent VL**

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Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

P

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
13	09	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
13	09	50	Clear coat	1 Liter			
13	09	51	Silver	1 Liter			
13	09	52	Gold	1 Liter			
13	09	80	Process yellow Europe shade	1 Liter			
13	09	81	Process magenta Europe shade	1 Liter			
13	09	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
13	09	83	Transparent paste	1 Liter			
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	01	VD	1 Liter	approx. 1 kg		
12	91	01	VD	5 Liter	approx. 5 kg		
12	01	04	VD 3	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	01	VZ	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	02	99	BH	0,2 Liter	approx. 0,2 kg		
12	53	01	BH	0,5 Liter	approx. 0,5 kg		
12	03	01	BH	1 Liter	approx. 1 kg		
Art.-Nr.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

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Application technical data sheet

P-AF

1- and 2-component ink, gloss ink

Free of cyclohexanone and phthalates

Field of application
Medical industry, packaging industry.

Properties	Block-resistant, suitable for food packaging (outside), air drying, oven drying, raster-capable, flow (good), mechanical resistance.		
Print technical note	For higher mechanical and chemical loads or if greater adhesion is required, ink type P-AF can also be used as a 2-component printing ink. When processing, cans with BH hardener must be sealed airtight immediately after removal.		
Pre-treatment	All polyolefins (polyethylene, polypropylene).		
Drying	Physically drying and chemically cross-linking. At room temperature (20-25 °C) approx. 2-3 min. (dry to the touch and dust-dry). When exposed to heat/air circulation approx. 30-60 sec. Oven drying: time and temperature depend on the materials to be printed on (Reference value: 80 °C approx. 20 min. depending on ink film thickness).		
Curing	1-component ink at room temperature (20-25 °C) approx. 24 hours. 2-component ink + hardener BH at room temperature (20-25 °C) 3-4 days.		
Pot life	2-component ink: Pot life of the mixed ink approx. 10 hours, after which reduced adhesion and resistance must be expected, even if the ink still appears liquid and processable.		
Ability to over-print	1-component ink always, 2-component ink within 24 hours.		
Please note	–		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Only use RM cleaning agent. All cleaning devices and auxiliaries may only be used for chlorine- and cyclohexanone-free ink, otherwise they will be contaminated with halogen. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VD-HFC slow drying** **Thinner VD 4 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ**
	Hardener	**Mixing ratio 10 %**	**Hardener BH**
	Leveling agent	**Mixing ratio max. 1–5 %**	**Leveling agent VL-K**

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E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

P-AF

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
13	10	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
13	10	50	Clear coat	1 Liter			
13	10	51	Silver	1 Liter			
13	10	52	Gold	1 Liter			
13	10	80	Process yellow Europe shade	1 Liter			
13	10	81	Process magenta Europe shade	1 Liter			
13	10	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
13	09	83	Transparent paste	1 Liter			
Art.-No.			**Thinner**	**Container**	**kg**		
10	50	45	VD-HCF	1 Liter	approx. 1 kg		
12	01	34	VD 4	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	01	VZ	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	02	99	BH	0,2 Liter	approx. 0,2 kg		
12	53	01	BH	0,5 Liter	approx. 0,5 kg		
12	03	01	BH	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
10	53	50	VL-K	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

RDF-H

1- and 2-component ink, rotary printing, gloss ink

Halogen-free (without chlorine), free of aromatics and cyclohexanone

Field of application

Special halogen-free rotary pad printing ink, mainly for printing on bottle caps made of polyethylene and polypropylene. It can also be used for classic pad printing. The RDF-HF ink series is also suitable for printing on the outside of food packaging, provided that the inks are applied properly and professionally.

Properties	Impact resistant, block resistant, coverage (good), suitable for food packaging (outside), air drying, oven drying, abrasion-resistant, stackable, fast drying, flow (good).		
Print technical note	Please note that the screen and etching depth of the cliché cylinder and the printing speed of the rotary pad printing machine have an influence on the printing result.		
Pre-treatment	All polyolefins (polyethylene, polypropylene).		
Drying	Physically drying, chemically cross-linking. Air drying (21 °C) approx. 5 min. (hand and dust dry). Heat shock drying approx. 2-3 sec. (infrared drying or hot air blower).		
Curing	1-component ink - 1 day at room temperature (approx. 21 °C). 2-component ink - 3 days at room temperature (approx. 21 °C).		
Pot life	Pot life of the ink mixed with hardener approx. 8 hours. Leveling agent VL-K as required.		
Ability to over-print	1-component ink yes, 2-component ink within 24 hours.		
Please note	For higher mechanical and chemical loads or if greater adhesion is required, ink type RDF-HF can also be used as a 2-component ink.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Only use RM cleaning agent. All cleaning devices and auxiliaries may only be used for chlorine- and cyclohexanone-free ink, otherwise they will be contaminated with halogen. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VDL-K slow drying** **Thinner VDN-K** **Thinner VDS-K quick drying** **Thinner VDR-HF (for rotary printing)**
	Hardener	**Mixing ratio 10 %**	**Hardener LMN 3**
	Leveling agent	**Mixing ratio 0,5–1 %**	**Leveling agent VL-K**

This data is based on current technical knowledge and experience.
However, due to the wide range of possible influences during processing, they do not exempt the user from carrying out his own tests. No legally binding assurance of specific properties or suitability for a specific application can be derived from our information.
Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

RDF-HF

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
49	04	01** - 10**	Standard ink shades	1 Liter	1 kg		
49	04	12** - 13**	Standard ink shades	1 Liter	1 kg		
49	04	15** - 20**	Standard ink shades	1 Liter	1 kg		
49	04	22	Light brown	1 Liter	1 kg		
49	04	51	Silver	1 Liter	1 kg		
49	04	52	Gold	1 Liter	1 kg		
49	04	50	Clear coat	1 Liter	1 kg		
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	11	VDL-K	1 Liter	approx. 1 kg		
12	01	24	VDL-K	5 Liter	approx. 5 kg		
12	02	00	VDN-K	1 Liter	approx. 1 kg		
12	01	12	VDS-K	1 Liter	approx. 1 kg		
12	01	13	VDS-K	5 Liter	approx. 5 kg		
49	91	01	VDR-HF (for rotary printing)	1 Liter	approx. 1 kg		
49	91	02	VDR-HF (for rotary printing)	5 Liter	approx. 5 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	10	LMN 3	0,2 Liter	approx. 0,2 kg		
12	23	10	LMN 3	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
10	53	50	VL-K	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

S 2-component ink, gloss ink

Field of application
Automotive sector (engine compartment panels), badges.

Properties	Permanently elastic, coverage (good), suitable for food packaging (outside), air drying, oven drying, raster capable, abrasion-resistant, quick drying, leveling (good), mechanical resistance.		
Print technical note	–		
Pre-treatment	The surfaces to be printed must be free of grease or other residues.		
Drying	Chemical-reactive curing. At room temperature (20-25 °C) approx. 2-3 min. (hand and dust dry). Heat shock drying approx. 30 sec., Oven drying: time and temperature depending on the materials to be printed (Reference value: 80 °C approx. 20 min. depending on the thickness of the ink film).		
Curing	72 hours at room temperature 20-25 °C.		
Pot life	Pot life of the mixed ink at 20 °C approx. 8 hours. Due to a higher proportion of pigments in special inks, the pot life may be shorter compared to standard inks.		
Ability to over-print	Reactive curing inks have the property of being practically solvent-resistant after curing. Ink type S can only be overprinted within approx. 6 hours.		
Please note	The high mechanical and chemical resistance is only achieved after the complete curing of the ink.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10–20 %**	**Thinner VDL 380 slow drying** **Thinner VDL 1015 standard** **Thinner VDS 1015 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ 380**
	Hardener	**Mixing ratio 10 %**	**Hardener LMN 1 (UV resistance)**
	Leveling agent	**Mixing ratio 0,5–1 %**	**Leveling agent VL**

For your inquiry

S

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	18	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	18	50	Clear coat	1 Liter			
10	18	51	Silver	1 Liter			
10	18	52	Gold	1 Liter			
10	18	80	Process yellow Europe shade	1 Liter			
10	18	81	Process magenta Europe shade	1 Liter			
10	18	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	05	VDL 380	1 Liter	approx. 1 kg		
12	01	07	VDL 1015	1 Liter	approx. 1 kg		
12	91	07	VDL 1015	5 Liter	approx. 5 kg		
12	01	08	VDS 1015	1 Liter	approx. 1 kg		
12	01	10	VDS 1015	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	06	VZ 380	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	09	LMN 1	0,2 Liter	approx. 0,2 kg		
12	03	02	LMN 1	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

TH-G 1-component ink, gloss ink

Field of application
Special pad printing ink for stoving on surfaces that are exposed to high temperatures.

Properties	Permanently elastic, coverage (good), oven drying, fast drying, flow (good), mechanical resistance. Curing in the curing oven leads to a chemical bond and is a prerequisite for the above-mentioned properties.		
Print technical note	In pad printing, the inks can be processed in both "open" and "hermetic" systems.		
Pre-treatment	–		
Drying	Physical drying and subsequent oven drying with chemical cross-linking. Drying data: 40 min. at 180 °C or 20 min. at 200 °C.		
Curing	Oven drying: 40 min. at 180 °C or 20 min. at 200 °C.		
Pot life	When using glass bonding agent HV-G 8 hours pot life at 20-25 °C.		
Ability to over-print	For multi-color printing (overprinting), intermediate drying with infrared rays or hot/cold air blowers is recommended. Final drying takes place in a curing oven at 180 °C within 30 minutes.		
Please note	Glass adhesion promoter (max. 2 %) should be used to achieve better adhesion to glass. At a room temperature of approx. 20 °C, the pot life is approx. 8 hours.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 15–25 %**	**Thinner VDL 1015 slow drying** **Thinner VDS 1015 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ 380**
	Glass bonding agent	**Mixing ratio max. 2 %**	**Glass bonding agent HV-G**

This data is based on current technical knowledge and experience.
However, due to the wide range of possible influences during processing, they do not exempt the user from carrying out his own tests. No legally binding assurance of specific properties or suitability for a specific application can be derived from our information.
Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

TH-G

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	62	80	Black	1 Liter	Specific weight		
10	62	81	Black matt	1 Liter	1.0 – 1.5 kg!		
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	07	VDL 1015	1 Liter	approx. 1 kg		
12	91	07	VDL 1015	5 Liter	approx. 5 kg		
12	01	08	VDS 1015	1 Liter	approx. 1 kg		
12	01	10	VDS 1015	5 Liter	approx. 5 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	06	VZ 380	1 Liter	approx. 1 kg		
Art.-No.			**Bonding agent**	**Container**	**kg**		
12	05	05	HV-G	0,1 Liter	approx. 0,1 kg		
12	05	00	HV-G	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

TP-CD 1- and 2-component ink, gloss ink

Field of application
Often used for painted and powder-coated surfaces, e.g. suspension struts.

Properties	Air drying, oven drying, fast drying.		
Print technical note	It should be noted that the raster and the etching depth of the pad printing plate as well as the shape and hardness (Shore) of the printing pad and the printing speed of the pad printing machine have an influence on the printing result.		
Pre-treatment	The pre-treatment of polyethylene (PE) or polypropylene (PP), which is essential to ensure adhesion, is carried out by flame treatment, corona discharge or plasma processes.		
Drying	At room temperature (20-25 °C) approx. 1-2 min. (hand and dust dry). Shock drying: (infrared) 5-10 sec. Oven drying: Time and temperature depend on the materials to be printed on (Reference value: 80 °C approx. 20 min. depending on ink film thickness)		
Curing	1-component ink: At room temperature (20-25 °C) 1 day. 2-component ink: At room temperature (20-25 °C) 3-5 days.		
Pot life	Retarding - only use retarder TP-D. Pot life of the mixed ink approx. 8 hours.		
Ability to over-print	1-component ink: Yes. 2-component ink: Within 1 day.		
Please note	TP-CD inks can also be used as 2-component inks if they are subject to higher mechanical and chemical loads or if greater adhesion is required.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 0-30 %**	**Thinner CDV slow drying** **Thinner VD 3 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder TP-D**
	Hardener	**Mixing ratio 10 %**	**Hardener BH**
	Leveling agent	**Mixing ratio 1–5 %**	**Leveling agent VL**

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Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

TP-CD

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
13	25	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
13	25	50	Clear coat	1 Liter			
13	25	51	Silver	1 Liter			
13	25	52	Gold	1 Liter			
13	25	80	Process yellow Europe shade	1 Liter			
13	25	81	Process magenta Europe shade	1 Liter			
13	25	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	09	CDV	1 Liter	approx. 1 kg		
12	01	04	VD 3	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	07	TP-D	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	02	99	BH	0,2 Liter	approx. 0,2 kg		
12	53	01	BH	0,5 Liter	approx. 0,5 kg		
12	03	01	BH	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

TP-PP 1-component ink, gloss ink

Field of application
Special pad printing ink type for printing on PP material without pre-treatment.

Properties	Coverage (good), suitable for food packaging (outside), air drying, oven drying, mechanical resistance.		
Print technical note	It should be noted that there must be a cooling section after heat drying, otherwise the printed parts may stick together. As the substrates can differ greatly in terms of their chemical composition and production method, a suitability test must always be carried out. In particular, antistatic additives as well as release agents and lubricants can have a negative effect on ink adhesion.		
Drying	At room temperature (20-25 °C) approx. 2-3 minutes (dry to the touch and dust-dry). To accelerate the drying of the ink on the substrate, it is advisable to use a hot air blower or infrared radiator.		
Drying	At room temperature (20-25 °C) approx. 1 day.		
Ability to over-print	Yes		
Please note	Ink type TP-PP is only available to order. Not available from stock.		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 15-20 %**	**Thinner VD-PP/S quick drying** **Thinner VD-PP/L slow drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ-PP**
	Leveling agent	**Mixing ratio 1–5 %**	**Leveling agent VL**

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Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

TP-PP

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	15	01** - 23**	Standard ink shades*	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	57	36	Bronze binder	1 Liter			
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	32	VD-PP/L	1 Liter	approx. 1 kg		
12	01	33	VD-PP/S	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	10	VZ-PP	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

*** Attention! Not available from stock. Standard inks on request.**

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

U-HF

1- and 2-component ink, gloss ink

Halogen-free (without chlorine), free of aromatics and cyclohexanone

Field of application
Used in "open" and "hermetic" pad printing systems. Often used in medical technology, household appliances and PA substrates.

Properties	The inks in the U-HF series are suitable for printing on a side of the packaging facing away from the food, provided that the inks are applied properly and professionally. Advertising materials industry, toy industry, medical technology, closure caps.		
Print technical note	During processing and drying of the ink with hardener, care must be taken to ensure that the processing and curing temperature does not fall below 15 °C, as otherwise chemical cross-linking will come to a standstill. Excessive humidity should also be avoided in the first few hours, as the hardener is moisture-sensitive.		
Pre-treatment	The pre-treatment of polyethylene (PE) or polypropylene (PP), which is essential to ensure adhesion, is carried out by flame treatment, corona discharge or plasma process.		
Drying	The drying behavior of the U-HF ink series during the printing process is of decisive importance for the printing result. Physically drying and chemically cross-linking. At room temperature (21 °C) approx. 5 min., 50 °C within 2 min., heat shock drying in 2-3 seconds (both hand and dust dry). To accelerate the drying of the ink on the substrate, it is advisable to use a hot air blower or infrared radiator.		
Curing	1-component ink = 1 day, 2-component ink = 3-4 days.		
Pot life	Pot life of mixed ink approx. 8 hours.		
Ability to over-print	1-component ink yes, 2-component ink within 24 hours.		
Please note	See cleaning instructions!		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Only use RM cleaning agent. All cleaning devices and auxiliaries may only be used for chlorine- and cyclohexanone-free ink, otherwise they will be contaminated with halogen. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 10-30 %**	**Thinner VDL-K** **Thinner VDL-K 380** **Thinner VDS-K** **Thinner VDN-K**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ-K**
	Hardener	**Mixing ratio 10 %**	**Hardener LMN 3**
	Leveling agent	**Mixing ratio 0,5–1 %**	**Leveling agent VL-K**

Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

U-HF

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	10	01** - 20**	Standardf ink shades	1 Liter	1 kg		
10	10	22** - 23**	Standardf ink shades	1 Liter	1 kg		
10	10	51	Silver	1 Liter	1 kg		
10	10	52	Gold	1 Liter	1 kg		
10	10	60	Clear coat	1 Liter	1 kg		
Other ink shades on request							
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	11	VDL-K	1 Liter	approx. 1 kg		
12	01	24	VDL-K	5 Liter	approx. 5 kg		
12	02	02	VDL-K 380	1 Liter	approx. 1 kg		
12	01	12	VDS-K	1 Liter	approx. 1 kg		
12	01	13	VDS-K	5 Liter	approx. 5 kg		
12	02	00	VDN-K	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	08	VZ-K	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	03	10	LMN 3	0,2 Liter	approx. 0,2 kg		
12	23	10	LMN 3	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	53	50	VL-K	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

UV-RDF

1-component ink, gloss ink

Available as matt ink on request

Field of application

The UV-RDF is very reactive. Suitable for high-speed pad printing systems.
Rotary pad printing, but also for "hermetic" and "open" pad printing systems.

Properties	Impact-resistant, block-resistant, permanently elastic, coverage (good), suitable for food packaging (outside), raster capable, abrasion-resistant, stackable, thermoformable, flow (good), mechanical resistance.
Print technical note	If printing defects occur (haloing) = addition: 5 % to max. 10 % UV-RDF printing additive. It should be noted that the screening and etching depth of the pad printing cliché, the shape and hardness (Shore) of the printing pad, the printing speed of the pad printing machine and the intensity of the lamp all have an influence on the print result.
Pre-treatment	Absolutely necessary to ensure ink adhesion. Flame treatment, corona discharge or plasma process for: Polypropylene (PP), polyethylene (PE). Surface tension should be at: pre-treated polypropylene (PP) at least = 42 mN/m, polyethylene (PE) = 42 mN/m.
Drying	a) All ink shades can be cured with UV lamps (medium pressure mercury vapor lamps) of min. 160 W/cm can be used for curing. b) A post-curing phase of approx. 12 hours should be observed. The ink film then has its final properties.
Curing	Please note: A too low radiator intensity, a too high machine speed and a too high ink film thickness have a negative influence on the curing and adhesion properties.
Ability to over-print	Possible within the curing time. Intermediate drying is recommended.
Please note	As materials can differ greatly in terms of their chemical structure and manufacturing method, a sample (test print) must always be made.
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.

Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

UV-RDF

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
49	03	01** - 23**	Standard ink shades	1 Liter	1 kg		
49	03	50	Bronze binder	1 Liter	1 kg		
49	03	51	Silver	1 Liter	1 kg		
49	03	52	Gold	1 Liter	1 kg		
49	03	53	Clear coat	1 Liter	1 kg		
49	03	80	Process yellow Europe shade	1 Liter	1 kg		
49	03	81	Process magenta Europe shade	1 Liter	1 kg		
49	03	82	Process cyan Europe shade	1 Liter	1 kg		
Other ink shades on request							
Art.-No.			**Additive**	**Container**	**kg**		
49	03	54	Print additive UV-RDF	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Application technical data sheet

W 2-component ink, gloss ink

Field of application
Packaging industry, preferably used in "open" systems.

Properties	Air drying, oven drying, raster-capable, flow (good), mechanical resistance.		
Print technical note	The best multicolor prints with superimposed ink surfaces are achieved with printing units connected in series with intermediate drying stations.		
Pre-treatment	During processing and drying of the ink with hardener make sure that the processing and curing temperature does not fall below 15 °C, otherwise the chemical cross-linking will come to a standstill. Excessive humidity should also be avoided in the first few hours, as the hardener is moisture-sensitive.		
Drying	After adding BH hardener, physical chemical drying. At room temperature (20-25 °C) approx. 2 min. (hand and dust dry), approx. 20-30 sec. when exposed to heat/air circulation, a few seconds with thermal diffusion. Oven drying: time and temperature depend on the materials to be printed (Reference value: 80 °C approx. 20 min. depending on ink layer thickness).		
Curing	At room temperature (20–25 °C) approx. 5 days.		
Pot life	Pot life of the mixed ink approx. 6 hours, after which reduced adhesion and resistance must be expected, even if the ink still appears liquid and workable.		
Ability to overprint	Overprinting of ink type W is only possible within approx. 8 hours.		
Please note	–		
Certification & norms	■ The safety data sheet in accordance with REACH Regulation (EC) 1907/2006 contains the labeling as well as information on protective measures during processing, storage and disposal. The raw materials used comply with the limit values of the European standard EN 71 (safety of toys) Part 3 (migration of certain elements).		
Cleaning	Our RM cleaning agent is suitable for cleaning tools and pad printing clichés. Use our pad cleaner to clean the printing pads.		
Auxiliaries	**Thinner**	**Mixing ratio 15–30 %**	**Thinner VD slow drying** **Thinner VD 3 quick drying**
	Retarder	**Mixing ratio 5-25 %**	**Retarder VZ**
	Hardener	**Mixing ratio 33,3–50 %**	**Hardener BH**
	Leveling agent	**Mixing ratio 1–5 %**	**Leveling agent VL**

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Application technology: If you have any further questions about printing and application technology, please contact our application technology department at any time.
E-Mail: application@tampoprint.de, Tel.: +49 7150 928-351

For your inquiry

W

Our product range						Your needs	
Art.-No.			**Standard ink shade**	**Container**	**Contents**	**Unit**	**Ink shade**
10	21	01** - 23**	Standard ink shades	1 Liter	Specific weight 1.2 – 2.0 kg!		
10	21	50	Bronze binder	1 Liter			
10	21	80	Process yellow Europe shade	1 Liter			
10	21	81	Process magenta Europe shade	1 Liter			
10	21	82	Process cyan Europe shade	1 Liter			
Other ink shades on request							
10	21	83	Transparent paste	1 Liter			
Art.-No.			**Thinner**	**Container**	**kg**		
12	01	01	VD	1 Liter	approx. 1 kg		
12	91	01	VD	5 Liter	approx. 5 kg		
12	01	04	VD 3	1 Liter	approx. 1 kg		
Art.-No.			**Retarder**	**Container**	**kg**		
12	02	01	VZ	1 Liter	approx. 1 kg		
Art.-No.			**Hardener**	**Container**	**kg**		
12	02	99	BH	0,2 Liter	approx. 0,2 kg		
12	53	01	BH	0,5 Liter	approx. 0,5 kg		
12	03	01	BH	1 Liter	approx. 1 kg		
Art.-No.			**Leveling agent**				
12	05	01	VL	1 Liter	approx. 1 kg		
Art.-No.			**Cleaning agent**	**Container**	**kg**		
12	04	01	RM	1 Liter	approx. 1 kg		
12	94	01	RM	30 Liter	approx. 30 kg		
Art.-No.			**Pad cleaner**	**Container**	**kg**		
12	04	04	Pad cleaner	1 Liter	approx. 1 kg		
12	04	05	Pad cleaner	5 Liter	approx. 5 kg		

Contact
Sale of pad printing ink
E-Mail: colour@tampoprint.de
at: tampoprint.com/downloads (Service request forms)

Material safety data sheets:
Please address your inquiries to
colourmsds@tampoprint.de

** To determine the article number, please **add the two-digit number** of the respective **standard ink shade (ink shade card page 10)** to the **article number** and state the complete number in the **order**.

Overview page based on examples

Ink types

16

Ink type ACP
Highlighter

18

Ink type B
Objektive lens

20

Ink type B/GL
Glass tubes

22

Ink type CFU
Play bricks

24

Ink type F
Screwdriver bits

26

Ink type GU-N
Toy rays

28

Ink type L
Tank oil cap

30

Ink type LOGO
Golf balls

32

Ink type M
Socket wrench head

34

Ink type N
Spectacle frame

36

Ink type P
Mascara

38

Ink type P-AF
BFS container

Overview page based on examples

Ink types

40

Ink type RDF-HF
Closure caps

42

Ink type S
Engine cover

44

Ink type TH-G
LED lamp

46

Ink type TP-CD
Gas and water fittings

48

Ink type TP-PP
Steam iron faceplate

50

Ink type U-HF
Baby bottles

52

Ink type UV-RDF
Crown cork

54

Ink type W
Sealing cap AdBlue


technologies f

Selection guide

Pad Printing Ink

Your pad printing ink selection

Which ink type is the right one is based on various influencing factors. The opacity of the ink types and ink shades depends on the surface to be printed as well as the engraving depth, cliché screening and the number of prints (single or double/multiple printing). The ink consistency must also be adjusted to the correct viscosity with the appropriate thinner (solvent), depending on the print image. You will find the auxiliaries perfectly matched to our pad printing inks in our portfolio.

Industry	Ink type
Medical technology	U-HF
Beverages	RDF-HF, P-AF
Automotive interior / exterior	N, B, S
Sports	LOGO, ACP, GU-N
Hygiene and cosmetics	U-HF, CFU
Sanitary	B/GL, S
Stationery	CFU, P-AF
Baby products	U-HF

Industry	Ink type
Toys	P-AF, CFU, U-HF
Tools	B, B/GL, TP-CD, G-UN
Optics and measuring technique	S, B/GL
Electronics	CFU, P-AF, silicone-free version possible
White goods	CFU, U-HF
Exclusive products	N
Home Interior	CFU, P-AF

Please note that the information given is a guideline. A concrete recommendation depends on the application and the material.
An incoming inspection (test print) must always be carried out. We will be pleased to advise you.

Technical data under download on our homepage

OUR SERVICES
As a full-service supplier, we provide fast and reliable support for your requests.

Service

Application Technology

Application-related services
Our application engineering department performs a detailed analysis of the task at hand, determines all process requirements and develops the best possible approach for your marking process.
We support you in the launch phase of your series production, verify your process flow and integrate it into your existing production line.

We provide our customers with expert advice on choosing the right ink. But we also reliably solve any task in processes that are not linked to ink, such as the application of lubricants, adhesives, release agents or medical active ingredients.

Our service
- Determination of the optimum interaction of all components
- Support with machine setup
- Process optimization of existing production lines
- Support for pad printing and laser specialists
- Development of marking processes
- Determination of printing/laser machine parameters
- Verification of process sequences
- Integration into automations or production lines
- Support of sensitive industries such as pharma, medical technology and automotive
- Validation in accordance with the GMP guidelines
- Validation in accordance with the IATF 16949 guidelines

Feasibility analysis and sampling
Determination of the optimal interaction of all components

Small series production and start-up support
Production of the pre-series by our experienced application engineers

Contract manufacturing
Test prints, sampling and production outsourcing

Validation
Comprehensive support for the required validation processes

TAMPOPRINT®

HERMETIC 90
Consumables: Standard antistatic printing pad, Magnet-Aloxid cliché plate, ink/doctoring cup Ø 90 NE.

Pad printing

MACHINES

Thank you

For your Interest and your Trust

Your Partner for Laser Marking and Pad Printing
We offer you everything from a single source: from consulting, machines and consumables down to service.

New product designs, product markings and plagiarism protection are possible with pad printing and laser machines. Use our experience for optimized or new production processes. Our core competencies are industrial pad printing and laser marking. Of course, both processes can be combined and integrated into automations using software developed in-house.

Our reliable, uncomplicated and efficient standard pad printing machines for classic pad printing are suitable for numerous tasks in industry. The standardization of our machines has many advantages for our customers: The industrial marking systems deliver optimal printing results, high process stability and offer ease of operation, maintenance friendliness and cost savings.

We offer our customers complex, semi- and fully automated industrial marking systems for large quantities and high cycle rates. These include the modular system MAP (Modular Automation Platform) or the rotary automations ROTOPRINT as well as CLOSURE PRINT COMPACT. Rotary pad printing offers speed combined with frequent motif changes. For applications where production flexibility and user-friendliness are particularly important, our semi-automatic systems of the MODULE-ONE series score highly.

Our industrial marking systems, which combine pad printing and laser technology, enable special solutions in pad printing that are perfectly matched to the requirement. The combined systems offer versatile application possibilities when printing on the smallest areas, combined with individual laser engraving.

Similar decoration processes such as offset printing or screen printing, embossing or etching reach their physical and economic limits in comparison. It is possible for pad printing and also our laser systems to print or mark concave as well as convex and uneven surfaces. Take your time to get to know pad printing and develop your own ideas and concepts.

In recent decades, pad printing has undergone a transformation from the so-called "open" ink/doctoring system to the closed, i.e. "hermetic", ink/doctoring system (invented by TAMPOPRINT and first introduced to the global market in 1983 with the "ENCODER" pad printing machine).

For some years now, there has been another technical revolution, the integrated printing cliché production within the printing process, integrated into the standard pad printing machine.

Today, the "hermetic" system and its use dominate the market. Advantages for the user include:
- No health hazards such as solvent evaporation
- Constant ink consistency
- Cleanliness and time savings during ink changes
- Stable printing process
- No drying of the printing ink during downtimes
- Minimized waste during set-up
- Fast changeover of the pad printing machines

Send us your request!

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All locations are certified ISO 9001:2015

03/2024